

THE ITEMS OF INTEREST.

A Monthly Magazine
OF
DENTAL ART, SCIENCE AND LITERATURE.

EDITED BY
T. B. WELCH, M.D.

VOLUME XIV.

PHILADELPHIA :
THE WILMINGTON DENTAL MFG CO., PUBLISHERS,
1413 Filbert Street.
1892.

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ITEMS OF INTEREST.

VOL. XIV.

PHILADELPHIA, JANUARY, 1892.

No. 1.

Thoughts from the Profession.

AMALGAM.—INCIDENTS No. 1.

BY DR. J. W. CLOWES, NEW YORK.

WHAT IS A GRAND MOLAR?

Several years ago a lady from Boston came to see me in reference to her teeth. She had formerly been a patient of mine when living in New York; but having married and gone away I had not heard of her since, except through a bad reputation achieved by myself in filling a vast dental cavity in one of her molars with amalgam. Some dentist had told her that amalgam was poisonous, and generally destructive to human health and happiness! Influenced by this delusion she had expressed herself pretty freely to others, and left me to suffer regrets that I had ever known her. Years passed away and the recollections of professional calumny and mistaken impressions were fading from my mind when the wanderer returned, and, under my hands once more, gave a touching recital of the husks and infelicities to which she had been subjected since our last meeting. She had, indeed, come back with broader views and increased faith to seek again my earnest care.

A great "professional light" had but recently shone on her with gutta-percha rays, and in their dimness and inefficiency had sent her forth to mumble, not to masticate her food.

In this lady's mouth—right side, upper jaw—were two weak and shelly bicuspid, with proximal cavities extending from grinding surfaces to alveoli, loose in their sockets, and surrounded at their apexes by ulcerous sacs, and, as I have intimated, gutta-percha, professionally applied, accompanied them. Could there be anything more hopeless and worthless than these two dental wrecks?

And yet it was out of them and within them that I proposed to construct a grand molar!

My first move was to displace the obstructive fillings. My next to cleanse and disinfect the root canals. Then followed the accurate shaping of interior channels for the reception of screws and a horizontal bar. After these the necessary and helpful excavations were made wherever possible, and all by way of preparation. Having filled the apical extremities with gutta-percha, and a small portion of the roots with very soft amalgam, I proceeded to place my screws and bar in position, then to fill firmly around them and on the gum between the teeth with still very soft amalgam. Thus I continued my work of building up within the cavities and intervening space till in one mass, and due proportion, arose a molar grand—the most wonderful product of strength, firmness, and stability, in the presence of adverse conditions—that the world ever saw. My patient was requested to do nothing within the next twenty-four hours to disturb what had been done, and then to return and have it carved and appropriately finished. Other similar operations were performed for her, uniting molars as well as bicuspid, thus making “double grands,” and out of their presence came an ability to chew that pleased her greatly, and the summing up of her estimate of my achievements was in these words, forcibly expressed, “When I return to Boston I shall call on Dr. — and give him a piece of my mind.” I begged she would not do this, but rather to visit him in a friendly way, and show him what I had done; and if he desired, tell him as best she might, the manner of its doing. In that case she might do good and deserve his thanks. But she declared, “It would be useless. He is so conceited that he is beyond learning anything.” Then I advised her to keep away. All this was years ago. Since then the full orb'd bud of professional promise has had a marvelous expansion. Through the modest and retiring excellence of amalgam a glorious impulse has been given to dental progress, while garish shows, by bridge and crown, impress unfavorably the thoughtful mind.

Sometimes, particularly with a partial rubber denture, the plate will be as snug as desirable, part of the time, but sometimes very loose. To avoid this, before casting your model, make the grooves in the impression, caused by the rugæ of the mouth, much larger, as in some mouths these vary in size at intervals.—*I. Douglas.*

"AS IT IS," VS. AS WE WOULD HAVE IT.

There are still to be found dentists, nothing daunting, just as ready to enlist in a crusade that shall wipe out dental quackery, *instantly*; as fanatics, ever and anon, would similarly wipe out evil. What though, in their apparent ignorance of nature's subtle laws—the trend of evolution—they unwittingly pit themselves against the avoirdupois of the universe? As Emerson says: "Tis fine for us to speculate, and elect our course, if we must accept an irresistible dictation."

The published transactions of the late Indiana State Dental Association contains some things wise and some otherwise. Among the latter must be classed the paper "As It Is," for it is too conservative to conserve its own object; namely, the furtherance of association benefits.

The writer says: "There are five hundred dentists in Indiana, with only one hundred members of the Association." He believes the cause of non-membership to lie in "a semi-reputable practice not tolerated by our ethics"; and he would seek to attract these off-dentists by saying that, "The diploma of every dental college should be revoked when its holder violates the code of ethics." But, while this zealous writer would thus take a kangaroo-leap backward toward the inquisition, the discussion following his paper developed better council, to foster which is the object of this paper.

And yet, to be frank, I write because the writer of the above paper has generously requested me to criticise it, and consider myself retained, as it were, to defend the above four hundred; as if, somehow, though in known sympathy with them, I yet have some hold on the profession. In fact, I will only consent to a possible criticism of professionalism, while insisting that I am in perfect accord with the professions' general aims and methods.

However desirable it may be that the world's masses might live like its privileged classes—the Indiana's four hundred like the New York city's four hundred—they can not; and the main question at issue in dental ethics is, How far shall fortuitously successful practitioners compromise with those less fortunate, for the sake of a fraternization considered as conducive to best interests?

In considering this question we should bear in mind, first, that so long as human nature is as it is, we will have those with us who will take the shortest cut to success, even if that be in disregard of ethics; and, second, that so long as competition is as it is, we will have with us the semi-reputable practitioners, whose necessities

will not allow them to conform to a professionalism that is all right for successful men.

Now if, as indicated, the first class but reflect human nature, our indictment for a supposed offense here should be made out against human nature, even if it be returned marked "not found." We certainly feel, in common parlance, that it is asking too much of human nature to expect a man born "all business" to deny himself success on account of professionalism. In fact, we find that even professional men "to the manner born" cannot deny themselves, when one is offered a "removal from the outskirts of the city into handsome down-town offices, where he runs five chairs, and at once draws the best business of the city," as illustrated by a recent case reported in the *ITEMS*.

As to the second class, a successful man should feel but profound sympathy for the many worthy dentists who have a Sphinx's riddle forced on them to solve, for dear life and family sake, as to how they may secure enough practice to meet absolute demands. They see success fall to some of their competitors like inherited wealth, which it were futile for them to depend on, and thus they can but resort to some unprofessional activity for succor. Vain seeking for either competency or ease is their average lot; and, is prescription the magnanimity offered these by broad-minded professional brethren? Such was not the return made by Joseph to his brethren in want, though their offense was almost as bad as the one under consideration.

Again, though the intent of this paper did not include a defense of the outright quack, a logical sequence of the foregoing leads me to ask, May it not be but a remnant of savagery in our boasted civilization by which we withhold charity from even him, sometimes? Or, to make myself plainer, by a still further divergence from a direct line, Does it not sometimes occur to us, as we get glimpses of higher life through civilization, that in the final judgment day infinite justice may say to even the veriest tramp, "To-serve my purpose on earth I gave you the environments that determined your misery; now for compensation, step up—instead of down." While to a neatly good man he may say: "I similarly gave you the surroundings that determined your happiness and now you may wait here in the ante-room awhile." For, "He knoweth our frame," as we have scarcely dreamed of it.

A Baltimore lawyer's outburst so unwittingly depicts the general situation as contained in competition, that I must quote it:—

"All this comes from the disgraceful competition now going on among attorneys for business. The people, too, have got to understand this, and

seem to be willing to take all chances, and deal with attorneys as they do with fakirs. Why, sir, the business of this bar is not sufficient to afford a respectable practice to one-third of its members to-day, and the result is that many of them who are compelled to have business or starve have become a disgrace to their profession, and the sooner some means is found to disbar them the better it will be for all concerned. There is also plenty of good legal talent going to waste here, and men who would be ornaments to their profession are passing their time in idleness because they will not resort to unprofessional methods to get business."

Here is, indeed, a grist containing the gist of our trouble. I may grind a little to our relief; but, while our legal friend may be astute in law, he seems lacking in the philosophy that can either cure or endure. He is evidently a typical, pampered, pompous, would-be autocrat, whose pride is touched to indignation that Providence allows competition to the extent of jeopardizing his personal ease and professional dignity. He is of the privileged classes who are bound to "kick" when at last millennial evolution goes back on them. He arrogantly accepts personal preferments as indisputable rights, just as English aristocrats look on their inherited estates. He is of that class of our protectionists who would presume to retain a mile square for each of our inhabitants, and \$3.50 per day for our workmen, though the rest of the world had but 25 cents per day, and two foot six of ground for burial.

Providence may not always thus seem to be a respecter of persons, and in favor of the most arrogant of His children; I only wonder that he has upheld such so long.

Not business enough for one-third the number! and yet, those "in it," ostracising those who "being compelled to have business or starve" resort to the disagreeable activity which secures it. Heinous crime! On this principle, men in ditches should be shot; though they have not voluntarily chosen the more laborious and less reputable lot, any more than my clients elect to—advertise, for instance—rather than await patiently in dignified ease.

Not that advertising is any sure panacea; more money is lost than made by it; but most of the profession resort to it sometime, some way—albeit, delegates to conventions confine themselves to the free advertisements of local notices. My sympathies are with the less noted class, who have to pay for really inferior advertising.

And if the profession insists that semi-reputable dentists are contaminated by taking the offensive movement against quackery, in their necessary competition with it, I retort that the profession is much more implicated with the meanest of all quacks, namely, the pseudo-professional one, who is as much worse than a

"cheap John," as his prices are higher. The essential characteristic of quackery is bungling; but, when to malpractice is added filching, as intimated, the very acme of meanness is reached. And yet, just this is fostered by the profession whenever a bungler joins "the Association," for then, presto—no matter if up till then he has been a clodhopper—he is encouraged to assume a superiority over his past fellows that will warrant him in charging them ten times as much for his services as they can command for theirs. The profession also fosters their meanness by furnishing the ethics that forbids a patient asking, in advance, the cost of an operation, and then winking and fairly chuckling at an imposition—in emulation of its mother profession at a recent charge of \$5,000 for removing a wen! The meanest chiropodic quack out takes a similar advantage of a victim too timid or gentle to take proper precautions. I am willing to go on record as in sympathy with the public as much against professional pseudoism as "cheap John" quackery. It is presumption enough for even competent men to charge professional fees for services to intellectual equals in limited circumstances.

I wouldn't be misunderstood here. I deprecated the first "ten dollar dentist," as I deprecate the "cheap" dentist of to-day, who is willing to ruin the many for a dubious gain to himself. So we all deprecate the conditions whereby a merchant not only mercilessly crushes out direct competitors, but jeopardizes others by selling their wares at cost for indirect and infinitesimal advantages.

But, what are you going to do about it? Can you hope to control the vulgar selfishness of human nature when it is only selfishness that prompts the refined to try and conform all to their particular ideas? Certainly not; nor will the profession increase association membership by efforts to conform all to its codes, any more than the church will become universal with its creeds.

The profession may indeed improve by continuing efforts along its present lines, exclusive of those to proscribe such as do not submit to impracticable ethics. In fact, the profession should accept as positive aids in its warfare on quacks, the attacks on them by these same semi-reputable practitioners. And, a competent dentist who allows a quack to make it over him, should realize that he is the quack's mental inferior, or a fool, for, surely he should win a race where facts are in his favor, unless ethics renders the opportunities of presenting facts less favorable than those of presenting falsehoods. Thus, so far from its being a virtue with the profession to call those disreputable who pitch quacks on their own ground, it is positive turpitude, not only in augmenting the chances for quacks to succeed, and in lessening those for worthy

dentists, but also in causing "good talent to go to waste," in the "men who would be ornaments to their profession," but "are passing their time in idleness, because they will not resort to unprofessional methods to get business."

To recapitulate, that I may make sure of the practical in my paper: I would have the profession, first, avoid the misdirected efforts of fanatics; and, second, allow the individual to pursue whatever honorable course his special case and surroundings may call for—whether that be advertising, or what not, to offset any fortuitous or undue advantage possessed by any competitor. And, having acted the part of a "learned profession," let us seek peace in acquiescence, even though the pseudo-professional quack remain, along with the less mean "cheap John" as ill-shapen as the devil—for, does not even the devil hold a place in the world by an almighty fiat? That is, does not evil exist, despite us?

C. C. Dills, D.D.S., Urbana, O.

WHY IS IT?

Why is it that nearly all plate teeth, plain or gum, are made with "cross" pins? And when the attendant is asked why there are not "strait" pins to be had, he replies "Dentists say they want them with the cross pins." Doubtless there are some dentists who do not know the tooth is stronger with the "strait" pins. There is no objection to them, except in short teeth. Certainly there ought to be a fair show for those dentists who desire them.

Why is it so many sets of plain rubber teeth are placed on the market with bicuspid and molars as long or longer than the fronts, when every dentist knows they cannot be used without much grinding, and, even if they could be used, they ought not to be so long by at least one-quarter?

Then it is very often the case they are out of all proportion to the fronts in *width*, very narrow with wide fronts, and *vice-versa*.

Why is it that, in a majority of cases, the lingual cusps, of both upper and lower sets, are longest, so that it is impossible to arrange them properly without grinding off these long cusps, either the upper or lower?

Why is it that the pins are placed so near the cusps that it is impossible to grind, when necessary, without almost exposing the pins, and that too, in the longest teeth? The pins can be placed

lower down, leaving a more shapely neck, and without having the rubber almost to the ends of the teeth on the lingual surface.

Why is it, in so many front teeth, the pins are placed so near the crown, even in long teeth, leaving them, when the rubber is finished, thick, interfering with the tongue, unnatural in appearance and in effect? There is no necessity for it.

Is it possible dentists do not see these glaring faults in teeth, or, if they see them, do not protest and suggest improvements? Just so long as these imperfectly shaped teeth are sold, and nobody "kicks," just so long will they continue to make them.—*Dr. L. P. Haskell.*

An editorial in the ITEMS OF INTEREST pleads for the salvation of the third molar, and gives good scientific reasons why it should be saved. This is becoming an important subject, and the habit of advising the extraction of the wisdom teeth because they are inconvenient to fill should be abandoned. Patients have been taught that these teeth are useless, poorly developed, hard to save, and very liable to ache; they, therefore, usually insist on their removal at once to save future trouble and expense. Since bridge-work has come into such universal use another good reason has been added to the list to plead for the salvation of these teeth. How many cases do we see that had the wisdom tooth been left its value as an abutment for a bridge would have been inestimable. We carelessly ask if this tooth was decayed when extracted, and are shocked to learn that it was perfectly sound, but had to be taken out because of crowding.

Let us no longer advise the extraction of teeth that are becoming more and more useful as science advances, but exert ourselves to do our duty even though it requires some effort.

Ed., in Southern Dental Journal.

SECOND DENTITION IN DOGS.—The question asked in the article on "Dentition in Cats," on page 648 of the November ITEMS, as to whether dogs have a second dentition or not, brings to my mind what I saw last summer which proves to me that they have.

My brother has a small dog; at that time was about one year old, from whose mouth, during the summer, I saw at least six teeth removed, which in a very short time were replaced by others.

L. L. Foote, Traer, Iowa.

DELICATE MANIPULATIONS.

Is it not true that the skill and delicacy of touch of dentists has been so much talked about and magnified that like a so-called conscientious liar, we have at last come to believe our own words. I doubt if many of us would care to compare our works with the productions of the best men in other lines of handicraft. Have you ever stood by the bench of a skilled watchmaker? Have you ever compared your finest specimen of crown making with the work of a fine jeweler? Have you ever been in a machine shop and watched a good "vise man" use a file? If not, try it and I don't believe you will be found very soon boasting of what dentists can do.

I was shown the other day a plaster cast of a baby hand, made by a lady artist of my acquaintance. It was so beautiful that I exclaimed. "Tell me how you work plaster, for this is to me a revelation." "Oh" she replied, while I blushed with shame, "I don't suppose I could teach you, a dentist, anything about plaster." And indeed there was nothing in her method but what every dentist of experience knows, the secret was no secret at all, it was in the wonderful skill of eye and hand.

It is a fortunate thing for the average dentist that patients who possess the kind of skill and taste here spoken of cannot often in the nature of the case critically examine his work. Else he would be mortified at the disclosure of cavities illy prepared and stuffed with ragged amalgam fillings, crowns and bridges, such as would justify a prosecution for malpractice; beautiful teeth mutilated with disk and file. But why prolong the list? If any one of you were put on the witness stand, enough evidence could be got from your observation to prove that the average dentist is not a fine workman.

"Pictures," said the great artist, "come out of one's head."
"Fill teeth with brains," said an honored dental instructor.

—Dr. L. M. Hanaford, in *Review*.

FOR PYORRHEA ALVEOLARIS try a freshly prepared saturated solution of sulphate of copper. To apply, take a hard wood stick the size of a match; cut one end down to the thickness of thick writing paper, roughen the edges, twist on a very little cotton, dip into the solution and pass into the pockets, after pretty well removing the moisture with a napkin or bibulous paper. This works like magic.

—I. Douglas.

GIVING GAS.

In November ITEMS, question 25, I see the youngest child where gas was administered was ten years old. I have used it for four little patients at five years of age. One of the four has taken it three times this year, and I could not persuade her to have deciduous teeth extracted without using it. The third time she came to the office alone.

It would be better for the profession if dentists would use gas more than they do, and not talk heart, lungs, etc., to scare patients when they do go to a dentist that uses it.

Get the confidence of your patient, then be sure the clothes are loose, to give free play to the diaphragm. Tell the patient to rest the hands on arms of chair, and be sure that they don't take hold tight; then there will not be the tired and exhausted feeling from nerve and muscular tension. Don't try to get too many teeth during one administration; better administer it three or four times at one sitting. Some use a mouth prop; but I never do.

I find that the gas-bags that have the outlet at end of bag is the cause of checking the free flow of gas, when it bends by pulling on outlet tubing, at the small point of the bag. To overcome this trouble, I have had a six-gallon bag made, with outlet coupling put on the side of the bag, which surely gives a free flow of gas.

Wm. C. C. Ball, Norwich, Ct.

An appeal to the mercenary inducement is not the only or highest motive to urge to induce dentists to become cleanly, but the reaction on the man himself will be of incalculable value, lifting him on to a higher plane of self respect and morality.

Dr. Douglas thinks the dentist's cuspidore should receive more attention than it generally did. He recommended washing thoroughly and then smoking them over burnt paper. Light a ball of paper and hold over it the cuspidore until it is hot, and then set it down over the burning paper and leave over night.

Personal cleanliness merits careful consideration. It is of the greatest importance; but cleanliness of instruments and appliances is one that is equally important. The invariable presence in every condition of the mouth requiring the interference of the dentist, of disease inoculating influence, which necessarily must contaminate every instrument used, renders cleanliness in respect to instruments and appliances of the utmost importance. Every dentist should

provide himself with simple and sufficient means for safely sterilizing every instrument used in connection with operations on the teeth and gums; and no instrument once used should be used on another patient without its having been cleansed and sterilized. This is particularly true in regard to excavators, burs, scalers, nerve canal instruments, and rubber-dam clamps, and applies with more or less force to other appliances.

—N. S. Hoff, in *Ohio Journal*.

A HARD CASE.—Below a labial cavity in a lower cuspid, the gums and alveolar border had receded so that the cavity extended nearly one-eighth of an inch below the margin of the alveolar border on the opposite side of the tooth. This is perplexing to fill with gold. But take a piece of hard wood, shape it like a wood-carver's gouge, only let each corner project that it may pass between the teeth, fitting it to the position on the tooth. Before applying the dam, saturate a thin piece of spunk with a 20-per cent solution of cocaine, and lay it on the gums for five or ten minutes; do not have too much of the solution, lest it mix with the saliva. Now apply the rubber dam; also the ligature, tied loosely for the present. Pull the rubber and ligature downward in front of the tooth, so as to expose the entire cavity and margin of the gums above the rubber. Place the stick in position and hold the rubber below the cavity firmly; let loose the rubber, and with a thin instrument, carefully work the rubber to its place. In this an assistant may be of great service by tightening the ligature gently while holding the stick firmly in place with the left hand. The cavity may now be prepared and filled entirely with the right hand.

—I. Douglas, in *Ohio Journal*.

I think my experience ought to justify me in maintaining, or at least expressing the opinion, that amalgam, when properly manipulated, will preserve the teeth. I have practiced in one place thirty years, and have seen fillings recently that I put in many years ago, and I have recently seen an amalgam filling made in the first years of my practice that was preserving the tooth perfectly. I think good amalgam, skilfully manipulated, will preserve the teeth as well as any other material.

—I. Douglas, in *Ohio Journal*.

To secure the blessings of your patients, polish the gingiva and palatal surfaces of all rubber plates.

ITEMS OF INTEREST.

INSTANCES REQUIRING SPECIAL CARE UNDER GAS.

Persons requiring special care are persons of large physique and plethoric habits; whose vital force is below par from overwork and worry, or from the effects of the late epidemic, grip; intemperate people; consumptives; and persons whose heart's action is weak without exhibiting any organic lesion.

In the plethoric habit, the appearance of deoxidation is so marked that it is impossible to carry these patients to the profound anesthetic state you would otherwise do for fear of actual asphyxia, and when you operate in the partial state of anesthesia—that is, when the cerebrum is paralyzed and the sensory and motor ganglia not—the involuntary resistance to the operation is such that an arterial rupture is possible.

In people whose vital force is below par, we must bear in mind that we are depressing a nervous system whose recuperative power is confined to the amount of strength the individual may possess. In such cases a little sherry wine given as a gentle stimulant immediately before administering the gas is desirable.

Persons at all under the influence of liquor should be refused, not from the fear of danger, but to avoid annoyance, for a nervous system partially narcotized from whisky will become pretty thoroughly so if the effects of the gas or any anesthetic be added.

Consumptives require great care, for the aerating surface of the lungs is so impaired by disease that the anesthesia progresses for some seconds after the discontinuance of the inhalation; so that with some it is necessary to remove the mouth-piece at the moment of unconsciousness or immediately before, and wait till the full force of the gas has been spent before operating.

In weak-heart action the greatest care is needed; as much perhaps in judging when it should be given or whether it should be given at all, as in the administration. In speaking of the weak heart, I do not mean one effected by the different phases of organic disease to which the heart is liable, but where no lesion can be detected, and, indeed, the patient may even be unaware of any functional disturbance.

It is generally conceded that in heart disease where the patient is in comparatively good health, there is less risk attending the administration than doing without it; so each operator must decide as to whether the patient would suffer more from the gas than from shock, if operated on without it. But in debilitated heart the administration seems to be attended with some risk, and

it has been of great interest to me to understand just what effect is here produced. The patient will seldom exhibit signs of syncope while under the 'gas, so it is fair to presume it has not had a depressing effect, and yet when recovering, or shortly after, a feeling of faintness seizes him. In some people who are subject to fainting at the sight of blood this may be expected at this time, but the cases to which I refer were probably never known to faint. This effect is usually seen in patients mostly of fleshy build and of sallow complexion, indicating liver-congestion and consequently vitiated blood. I have seen blood in some patients almost of the consistency of cream in these cases. Under such circumstances the heart is under great exertion at all times to propel the circulation, but particularly so under the nervous excitement from the anticipation of having a tooth extracted, when the pulsations will run up to one hundred and twenty or one hundred and thirty. After the exciting stimulus is removed the heart will fall much below the normal beat, which to my mind seems to be the expression of a demand for a period of rest, and is independent of any physiological effect of the gas. In such it is better to administer a light stimulant, and let the patient wait till he becomes more quiet and composed, when the gas may be given and the operation performed with this effect greatly mitigated if not entirely obviated.

In the event of a death taking place, under the circumstances I do not think it could be charged on the effect of the gas, as from a physiological standpoint the anesthesia has left the nerves of the heart untouched, and the verdict would necessarily be that it was heart-failure caused by debility and excitement, or perhaps shock.

It will never cease to be a wonderment when we contemplate the thousands who take the gas while they may be unconsciously suffering from some form of heart or other affection, and consider the great nervous tension they labor under both by suffering and loss of rest in addition to the fear of the operation, that deaths do not frequently occur from tooth-extraction even without taking the gas, for we have numerous instances where sudden fatalities have taken place,—notably, Secretary Windom after finishing his post-prandial speech in New York, and the Rev. Dr. Breckinridge at the close of his argument upon the Dr. Briggs' case in the Presbyterian Assembly at Detroit. These are happenings which are constantly recurring in every-day life, and there is nothing by which such a condition could be recognized as a warning against administering the gas; so I repeat it is wonderful that such occurrences are not frequent in the dental office.

—Dr G. D. Thomas, in *Cosmos*.

DID ARSENIC PRODUCE IT?

A few months since, a small woman with fairly good health presented herself in my dental chair.

I found that the crowns of eight molars had been lost by decay to such an extent that I extracted their roots separately, and easily.

Two incisor and one cuspid tooth of the lower jaw, were crownless and pulpless. Three bicuspid and two incisor teeth of the upper jaw were also crownless and pulpless. These eight teeth I have since supplied with artificial crowns.

The crowns of the other two upper incisor teeth were pulpless, and nearly half destroyed by decay, but their contours have been restored with annealed gold under the mallet.

The crown of the fourth upper bicuspid was pulpless, and half destroyed by decay. It is now filled with oxyphosphate. My astonishment over this pulpless condition was greatly increased when informed by the patient that she never had toothache in her life. Half the crown of the right inferior first bicuspid was restored with gold foil.

A large gold filing was inserted in right superior first molar. In preparing the last two teeth mentioned, excavations in the dentine could be felt, but produced no decided pain. Gold fillings were inserted in several other teeth where there was no sensation in the dentine whatever, but as the teeth were firmly set, of good color, and surrounded by healthful tissues, I did not open into their pulp chambers. Another excuse for not doing so, if apology seem to be necessary, that with all of these bad teeth, she has never had an alveolar abscess! My curiosity was so great as to induce me to institute a careful inquiry concerning the woman's history and habits. In October, 1880, her condition was such as to cause her to consult a physician, so-called. The "doctor" prescribed "Fowler's solution." This the patient took in "six-drops doses," three doses each day as directed, without any knowledge or suspicion of the *nature* of the solution.

Getting no better, "the doctor" was again consulted, and repeated his prescription. After weeks of perseverance in the use of the medicine, new and troublesome symptoms arose.

The number of the prescription being on the bottle, the medicine was procured of the druggist and taken with punctuality for months; the patient constantly growing worse, till, for the last six weeks of its use, she was confined to her bed, in a darkened room, with inflammation of conjunctive, suffusion of eyes, feet and ankles swollen, general anasarca in fact, and stomach too irri-

table to retain any solid food. In short, she was dangerously ill from slow arsenical poisoning, extending over a period of eight months; from October, 1880, to June, 1881.

She reports that her teeth were all sound at that time—ten years ago.

As there is no effect without a cause, the question for consideration is to determine the cause of such extensive devitalization.

The fact that arsenic is made use of for the destruction of pulps, by virtue of its caustic effect when locally applied, will throw no light on this case. For months the whole system was saturated with arsenic and the vital powers greatly depressed in consequence. The usual symptoms of slow arsenical poisoning were present. That the coats of the blood vessels were enfeebled, collapsed, was sufficiently proved by the general anasarca. The congestion of the capillary blood vessels and effusion into the cellular tissues about the eyes, in this, as in other cases, was well marked and one of the earliest symptoms. A similar congestion in, and effusion from, the capillary vessels of the pulps of the teeth, must have taken place. From the intolerance of food and general functional inaction, the whole system suffered from deficient nutrition.

The privation of nutrition from the pulps may have been greater than from any other portion of the system. Both anatomical and mechanical causes can be assigned for this opinion.

The congested condition of the capillaries may have been such as to greatly restrict and finally entirely intercept the flow of nutriment through the small and unyielding apical foramina. The arsenical solution was taken for eight months, and the process of destruction of the pulps may have continued for many months, or even years, longer. Indeed, the diminished sensibility of the dentine in teeth recently filled, indicates that the process of devitalization is still at work.

This slowness of destruction has given time for the disposition of the products of decomposition, through the process of absorption and elimination, as the result of increased glandular activity. Certainly, this very strange condition had a cause. If the above history and suggestions throw no light on it, will some one, better qualified, give us the true solution?

—Dr. G. E. Corbin, in *Ohio Journal*.

Much of the cause of failure in fillings is from the want of care exercised in the preparation of cavities. Thin or weak walls should be cut away.

Dr. Sweetman.

AMALGAM OR GOLD?

There are many cavities where we cannot put in a first-class gold filling, but can put in an excellent filling of amalgam; and without question this is much better than a poor gold one, for nothing will preserve a tooth better than the best amalgam filling.

Take a case of a left lower wisdom tooth with a large crown filling of amalgam, which has done service for eleven years, yet is still in perfect condition. A large cavity has formed in the posterior buccal side; three-fourths of the posterior side, and one-half of the buccal side are gone nearly to the margin of the gums, and, when prepared, to the gums and below. Of course the gums is fretted and cut by the excavators, and bleeding slightly. Wash the cavity, dry it with paper or spunk, and fill with dry absorbent cotton, allowing the cotton to extend over the gums. Dip a pellet of cotton in alcohol and touch that in the tooth to saturate it. Twist quite hard a piece of rather coarse ligature-twine, double and twist hard again, wax well and pass through the flame of a lamp to melt in the wax. Remove the cotton from the tooth; there is now no hemorrhage. Pass the twine around the tooth. If the second molar is too close to admit so large a cord between the crowns, run a piece of floss silk between the strands at the doubled end of the twine, pass the doubled floss between the crowns, and, by it, draw the cord through between the necks of the teeth. Tie the twine around the tooth by a surgeon's knot on the lingual side. Do not draw it tightly at first as it will lie across the cavity, but carry this part backward and push it down between the neck of the tooth and the gums. This excites slight hemorrhage, which can be stopped as before. The pulp of this tooth was destroyed about one year ago, and the posterior cavity filled—or, rather, stuffed, by a tooth-carpenter. After removing the crown filling, and after properly preparing and filling the root canals, again fill the cavity with cotton and saturate with alcohol, as before; yet not pressing it on the gums very hard this time, lest the removal of the pressure cause the blood to flow where the gums may have been cut. Prepare the amalgam and press it pretty dry. Now, either fix a pad of bibulous paper spongoid, or fold the corner of a napkin, to press against the parotid duct; twist the napkin and lay it between the tongue and jaw. Tip the head well to the right, remove the cotton, take up the excess of saliva, dry all with the warm air syringe, and the cavity is ready for the filling.

Take rather a large piece of amalgam at first, so as to cover the part next to the gum at once, pressing it down firmly. The

more force is used in packing the filling, the better the prospect of its lasting for many years. After thoroughly condensing the filling, dress it to shape, being careful that it does not project beyond the margin of the neck of the tooth.

Suppose two proximate cavities in upper molars, reaching far above the enamel of the tooth; the gums having receded. It is impossible to make the dam stay above the cavities, but, by putting a string around each tooth, as described heretofore, the two strings nearly or quite fill the space between the two teeth above the cavities. After preparing, and packing and again drying, as in the other case, fill as one cavity, letting the first piece of filling be large enough to cover the upper portion of both cavities at once. After they are well filled let the patient close the mouth and grind down on them well, provided the lateral walls are in tact, so there is no danger of breaking down the filling. Then cut them apart and trim into that shape which will be the most durable and comfortable for the patient.

For gold fillings in those small cavities, sometimes called pin-holes, first drill out the cavity round to remove the decay. Then with a small, round bur, very slightly undercut on one or two sides, just enough to insure the filling against turning while burnishing. With a bur a few sizes larger than the first, bevel the edges of the walls slightly, and after washing and drying, the cavity is ready to fill.

To prepare the filling, have a piece of bone—a tooth-brush handle will do—with holes graded to correspond with the engine bur. With a tapering square reamer, enlarge these holes from one side, so that they will be tapering most of the way through. Make a cylinder larger than the cavity when rolled snugly between thumb and finger. Force this through a number of successive holes, until it will just fit the round part of the cavity. The cavity clean and dry, insert this prepared plug. If it is all perfectly done, one can hear it squeak as it is forced through the round part of the cavity. Drive it home with plugger and mallet, and there is the most perfect filling that can possibly be put in such a cavity. In this way I have filled such cavities no larger than No. 00 bur. I have put in six of this kind, besides two other fillings, in the grinding surface of one molar.

This method also works well in quite large tin fillings in the posterior surface of bicuspid and molars, when there was such a profuse flow of saliva that it was just impossible to keep the cavities dry long enough to fill them in the ordinary way. Of course the tooth back of the one filled must be missing to fill in this way.

In malleting sore teeth, hold a piece of block tin, lead or hard wood against the opposite side.

—I. Douglas, in *Ohio Journal*.

CROWNS.

Crowns have been a boon to suffering humanity, are now, and ever will be. There are a great variety of them, as well as a great variety of methods of mounting them. The pioneer crown was the old-fashioned one, mounted on a simple wooden peg of well-seasoned hickory or locust wood, but as time advanced, and our profession also, this wooden peg was discarded for a more substantial peg or pivot of metal.

"In 1840, Henry Lawrence obtained a patent for a pivot tooth which consisted of an ordinary pivot crown with a hole entirely through it, ending in a countersink to accommodate the head of a screw of gold or some suitable metal, by which the crown was secured to the root."

Dr. E. Parmly Brown was the first to invent a porcelain crown with the metallic pivot locked in the tooth. His crowns were made with the incisors and cuspids having one pivot while the rest had pivots to accommodate the roots of the teeth for which they were intended. These crowns were mounted either with gutta-percha or oxyphosphate cement. Dr. Webb used an ordinary plate tooth backed up with a heavy piece of gold plate long enough to form the pivot, and secured it in the root by filling in and building up the back with gold. Dr. Flagg used to make his crown by soldering a platinum wire to the backing and pins of a plate tooth, using the wire for the pivot, and fastening it with amalgam. The Bonwill crown was an improvement at its advent and was a very good crown. The attachment being made by filling the hollow crown with some plastic material, either gutta-percha, cement or amalgam. The How crown was constructed in a little different form. It is a porcelain face, countersunk on the back or palatal surface, and has four pins backed in it, two on either side, but within the recess on the back. These crowns are anchored by means of clasping the four pins around a post sawed into the root, and then filled around the post and the back built up with either gold or plastic filling. The Logan crown is well known to us all as being a very good and useful one and easy of adaption to the roots of natural teeth. A Logan crown though, should not be mounted except with a band. A gold band should first be fitted to the natural root, after which a crown can easily be adjusted to the band, and a good and secure joint made and the root preserved. No crown can be put on with any security, either of firmness or of preventing decay in the root, unless the root is banded. It is almost useless to make any remarks as to the care that should be used in the fitting of these bands, for

we should all be well aware of the many bad results arising from poorly adjusted bands. The Richmond V-shaped crown is good and strong, but has the same drawback as the others by not having a band around the root, and it would not be as easily adjusted as the Bonwill with a band.

Dr. W. H. Dwinelle was the first to suggest the banding of pivot teeth. This was in 1855, and his method was to back up a plate tooth and solder to the backing with a horizontal piece of gold at the top, and attach to the root by means of screws into the dentine, and also a large one inserted in the pulp cavity, and allowed to extend into the recess within the band, and the vacuum filled with crystal gold packed in and around the projecting screw. In 1869, Dr. W. N. Morrison brought before the profession what would be more properly called a "cap crown" than a pivot tooth, as there were no pivots or screws used to retain it on the root. It was made of gold of the shape of the natural tooth, and of the proper size to fit the root just under the margin of the gum. Dr. B. Beers also had his own ideas of a crown, and made his in the shape of a cap and inserted headed gold screws into the pulp canal, and then filled the cap with oxychloride of zinc and pressed it to place over the root. Dr. E. S. Talbot made an improvement on Dr. Beers' crown by making a band to fit the root, and putting a partition or floor across the band and soldering it in place. Then he would perforate this floor, opposite the canals, and after setting the band on the root he would insert headed screws through the perforations into the canals, after which he would complete the operation by either filling the band with gold, or swaging a crown to fit either inside of the band or to slip over it, previously filling the cap with cement.

Dr. C. M. Richmond's method of making what is known as the "Richmond crown" is to take a strip of gold plate of sufficient length to encircle the root, make it to fit as snugly as possible, and solder the ends together; then solder a piece of gold plate to the grinding surface, and fit the other other end to the contour of the gum by grinding the approximal edges concave; after it is of the proper length the cusps are to be put on, which are made by melting scrap gold into buttons and soldering them on the cap in the proper places. It is then filled with cement and pressed to the proper position. At that time they used to drill a small hole through the crown to allow the surplus cement to escape, and after the cement was thoroughly set would remove the surplus and fill the opening with gold. Dr. H. W. F. Büttner's method was a combination or ferrule, or band, encircling the root, and a center pivot.

This makes an exceedingly strong crown, and owing to the manner in which the root is prepared by the special set of instruments it is bound to fit accurately, for the root is trimmed down on the face and trephined by the same sized instruments, and the cap is made over a steel model of the same size. I forgot to say that this has a porcelain face made by accurately fitting a metal plate tooth to the labial face of the band and invest as in all such cases, and solder up the lingual surface, after which it can be trimmed to the proper contour. The cusp crown was a device of Dr. H. C. Merriam. The roots were prepared with screws extending; the crown was then formed by making a band of gold and inserting a porcelain cap with cusps to correspond with the tooth, of the kind it was to replace. The collar was filled with either plastic materials used for filling purposes, and the cusp cap pressed into place. Dr. Starr's method of striking up cusps out of gold plate by means of dies and counter-dies is by far the better plan, and then flow the cusps on the concave surface flush with solder of about two karats less than the plate, and then solder to the band. By so doing one is enabled to grind the cusps if they do not articulate perfectly with their antagonists. In my opinion the method employed by Dr. B. J. Bing of inserting an artificial crown to adjoining teeth by means of gold fillings is not a good one, and is a method I should never adopt nor advise. It was to make a cavity in the tooth on either side of the space to be filled, and insert a crown having the pins on the sides, and long enough to reach into these cavities, and then fill around the pins, and by so doing hold the artificial crown in place. I do not think this method would be employed by any good reputable dentist. The best way of making porcelain front crowns is to make them with a gold tip on the grinding or cutting edges. This prevents the porcelain from chipping or breaking off in a great many cases where it otherwise would if not tipped in this manner. They are also made so that the porcelain can be readjusted, if broken off, without removing the crown from the root. This is done by carefully fitting the porcelain to the gold part of the crown; then finish and adjust the gold part to the root, and after it is securely fastened, then insert the porcelain face and fasten it in with cement.

—J. O. Brown, in Review.

Business of every kind seems to be booming. Our dental depots are doing a large business, and, of course, this shows that dentists are busy. We think this indicates a healthy state of growth.

DISCOLORATION OF GOLD IN THE MOUTH.

The discoloration of gold in the mouth has never, to my mind, been satisfactorily explained, both with regard to that of fillings as well as plates, and I doubt if anyone has really put his mind to work on the subject to discover what really is the cause of the trouble. As I call your attention to some facts, it will seem very plain at least that previous opinions are not well founded.

First, you know the gold which we use for filling must be pure gold, containing no alloy—at least I am told by Dr. Watts, one of our oldest manufacturers of gold-filling materials, that the least alloy will destroy its cohesive quality. Dr. Watts smiled when I asked him what metals were used to alloy the gold used for filling, and said, "If you only knew that a slight trace of alloy would render it non-cohesive you would know that all gold used for fillings must be essentially pure."

Dr. T. H. Chandler gives it as his opinion that in manipulating by mechanical contact with the iron from our instruments, or in burnishing, we rubbed off some portions of the metal on to the gold. But if you stop to think of this idea a moment you will see how improbable it is. The gold is soft, while the instrument is steel of a high temper, purposely hardened to do the work for which it is used, and we know that gold adheres to the instrument instead of *vice versa*. I venture to say there is not a trace of steel transferred from the instrument to the gold.

A significant fact is that the discoloration of a gold filling is a ruby color, and the discoloration of gold plates is identical with it. This will deepen and assume almost a black color as it accumulates, but it is really a ruby-colored film, contaminated with food, tartar, or tobacco smoke; of course the color may vary. When held in some lights, specially the sunlight, such a plate is a very deep ruby color; look at it again and it disappears. A plate polished by me a few months ago and is not very thickly coated. In different lights it presents varying shades of the same color. The question may be asked, if silver, gold and copper be alloyed together, will their salts be the same as when produced from the separate metals? Well, we know that a mechanical union exists between the silver, the gold and the copper proven in this way. A gold plate, alloyed with copper, when boiled in nitric acid loses its copper and retains the gold. The union between the metals is therefore simply mechanical, so that the salts would not be changed, that is, the salts formed will be essentially the salts of the metals possibly intermingled. This fact being settled, let us see what

salts of these metals are of a ruby color. First, we will take silver. Are there any ruby salts of silver? It is easy to refer to the standard works in chemistry and ascertain the color of the different salts, and thus make an analysis by exclusion. We find that the chlorides of silver are white, the oxides are brown or black, the sulphides and compounds of sulphides are black. There is a sulphide of silver which is red, but it is a mixture of arsenic and silver. As there is no arsenic or compounds of arsenic in the fluids of the mouth, or in the alloys of gold, this excludes silver.

Now let us examine copper: the sulphides of copper are blue, the chlorides are green, the oxides are blue or brown, the phosphides are black, so in going over the possible salts of these metals that may be formed by metamorphosis in the mouth, there are no salts that could be produced from either of these two metals that would give the ruby color which we find on the gold of fillings or plates. We have then but one inference left, that it must be a salt of gold itself.

In this analysis, by exclusion we have driven the investigation to the last and only metal; all metals that enter into this question are excluded except gold. The oxides of gold are derived from the chlorides, the only way they can be produced. The chlorides are first produced, using nitro hydrochloric acid; the oxides and chlorides are both yellow. The sulphides of silver, which form on a spoon when placed in an egg, cannot be produced either on alloyed gold or pure gold when placed in the same medium for months. I have tried the experiment of placing pure gold and eighteen carat gold in decomposing egg for two months, and they were as bright at the end of that time as when first placed in the test. There remains one salt of gold for us to consider before I call your attention to what I believe to be the true solution of the question, the purple of Cassius; but as we look at the manner of the formation of purple of Cassius, we find that must be excluded because tin is used with heat, and I do not know that there is no tin used in our gold plates; besides, there is not sufficient heat to develop the color if tin were present. There is no tin used in gold fillings.

We have then circumscribed the field of investigation to one salt of gold, and that is, the phosphate of gold. Some time ago I presented a paper on the decomposition of phosphates in the mouth, the result of some experiments performed in the chemical laboratory of the Harvard Medical School with Professor Hills. These experiments were made to prove the decomposition of the phosphates of the tooth developing free phosphoric acid, and proved the presence

of free phosphoric acid in dental caries. These phosphate salts of lime, etc., are not only in the cavities of decay, but around the neck of the teeth and in the fluids of the mouth, a fact well known. The manner of formation or decomposition can alone be of any doubt. In Bloxam, page 261, after speaking on phosphorus, its action not only on gold but on platina, this experiment is given which, proves that the combination of gold and phosphorus will produce the discoloration referred to. "By floating very minute scales of ordinary phosphorus on a dilute solution of chloride of gold, the metal will be reduced in the form of an extremely thin film, which may be raised on a glass plate, and will be found to have various shades of green and violet by transmitted light, dependent on its thickness, while its thickest part exhibits the ordinary color of the metal to reflected light. By heating the films on the plate, various shades of amethyst and ruby are developed. If a very dilute solution of the chloride of gold in distilled water be placed in a perfectly clean bottle, and a few drops of ether in which phosphorus has been dissolved, poured into it, a beautiful ruby-colored liquid is obtained, the color of which is due to metallic gold in an extremely finely-divided state, and on allowing it to stand for some months the metal subsides as a purple powder, leaving the liquid colorless. If any saline impurity be present in the gold solution, the color of the reduced gold will be amethyst or blue. These experiments (Faraday) illustrate very strikingly the use of gold for imparting ruby and purple tints to glass and the glaze of porcelain."

There is also another reference in Bloxam, page 434, on this subject: "If very finely-divided gold be suspended in water, it imparts a violet or red color to it. Such colored fluids, containing very minute particles of gold in a state of suspension, may be obtained by the action of phosphorus dissolved in ether on a very weak solution of gold in aqua regia."

Though this does not prove conclusively that this color is due to phosphorus, yet there is this point that may be made: That a combination of finely-divided gold and phosphorus produces this color, which is present both on the pure gold of fillings and on gold plates. According to my observations, the discoloration of gold in the mouth is most persistently present in cases of patients of nervous prostration or nervous disorders. I have several patients in mind whose fillings have been tarnished, and the majority of them are subject to some nervous trouble. One of the patients wears a plate which has to be polished every few weeks. We know that the chemical properties of nerve-matter are mainly phosphate of lime or phosphate of magnesia, and a nervous disease would

naturally excite the elimination of these substances from the nerve-tissues in various forms. I am not prepared to give the exact reaction which brings about this phosphorus and gold combination, but the presence of both elements in the mouth, coupled with the coloring referred to, renders the theory advanced probable.

If these observations are worth anything they prove this: That in regard to the discoloration of gold in the mouth it makes little difference what carat of gold we use for plates, a high carat is quite as likely to discolor as a low carat—we may use a fourteen carat or a twelve carat without fear of greater discoloration, and this is consistent with my experience in practice.

The tarnished plates I have was thoroughly cleansed from all foreign matter and subjected to the action of strong nitric acid for three weeks. A part of this acid was tested in the usual way with molybdate of ammonia, for phosphates or phosphorus, and a strong reaction gave the confirmation of its presence. The other portion on testing gave traces of gold sufficient to confirm its presence. The solubility of gold of the ruby salt in strong nitric acid is, of course, doubtful.

—E. S. Niles, in *International*.

TO MAKE NITROUS OXIDE SUCCESSFUL.

To make the use of nitrous oxide successful, there are some factors which are absolutely necessary.

In the first place the gas must be perfectly pure, and, if kept over water, must be fresh. The ammonia nitrate should always be tested before decomposition, and if there should be found the slightest trace of any chlorides it should be discarded. Although you may use wash-bottles for the purpose of eliminating the chlorine, experience shows that it will fail to do so, and the presence of chlorine in the gas will produce very grave depression of the heart's action, as well as general prostration. Care should also be taken to guard against the application of excessive heat in its manufacture. Gas made at too high a temperature will cause your patient to exhibit rapidly the signs of anesthesia, with highly accelerated heart-action and respiration; yet the moment the operation is commenced he will manifest great mental excitement and become almost unmanageable in his struggles, followed with general lassitude from reaction; and though no particularly alarming or serious symptom may appear, there is dissatisfaction to both your patient and yourself.

At the present time, however, the dentist is relieved of the cares of manufacture by being supplied from the dental depots

with the gas compressed in cylinders, which from the precautions taken in its preparation ought to be free from impurities.

The inhaling apparatus should be as simple in its construction as possible, with openings sufficiently large to permit the patient to breathe with no more exertion than is required in natural respiration. In my own practice we use a large inhaler made of vulcanized rubber, with flexible valves made of rubber-dam. It is necessary to use props to keep the jaws apart. During complete anesthesia the muscular system becomes sometimes rigid, and, unless the prop is used, the time necessary for the operation is lost while endeavoring to force the mouth open.

It is desirable also that the chair used for extracting with the gas should have the footstool detached. Patients are sometimes restless, and any movement of the legs or feet upon a stationary footstool will be felt upon the head and upper part of the body, resulting in great interference with the operation. With the stool separate and on casters, it is readily pushed away and the head kept in repose.

With pure gas, a good inhaler, and these precautions, we are well equipped for success.

For extracting, it is desirable that the forceps should be so constructed that the operator may stand in one position, and make one pair do as much as possible; in this way six or seven pairs will be found sufficient for all ordinary purposes. The beaks should be well sharpened, so there will be no slipping; serrated points and beaks, except in the molar pairs, are of little use in extracting with the gas. You want your forceps so that it will not be necessary to make a second effort on one tooth.

With these essentials, together with a proper amount of experience in its management, nitrous oxide will justify its claim to being the best anesthetic for dentists' use, for under such conditions you can put your patient to sleep, perform the operation, and have him return to consciousness inside of from one minute and ten to one minute and fifty seconds; and during this interval, with conditions favorable, the patient will pass into what is to him a pleasant sleep, without the least excitement or resistance, and awaken delighted with the result, sometimes declaring he was not cognizant of a moment's unconsciousness, and wondering when and how the tooth could have been extracted without his knowledge. During this short period the operator will have had time to extract from one to twelve, fifteen, or eighteen teeth, according to the character of the teeth and his own dexterity.

—Dr. J. D. Thomas, in *Cosmos*.

RAPID OPERATIONS.

In discussing this subject I would first make a distinction between rapidity and hurry. By the former we understand quickness without confusion; by the latter we understand haste without collected and well-directed thought, which, in careful operations, must be avoided.

In what I have to say I hope you will not get the idea that it is well to rush dental operations in an undignified manner, giving the patient the idea that your aim is to get through with him as quickly as possible, and be about something else. Still nearly all will realize that the patient will appreciate quickness, and be glad to make his visit to the dentist of as short duration as safety and good work will allow.

The man of business, whose time is crowded, and who has his own affairs arranged on a time-saving basis, who daily converses over the wire with his friend in New York, or who may telegraph to his agent in Calcutta at four o'clock in the afternoon, and finds the reply on his desk on his return to his office the next morning, easily loses patience when seeing the dentist wasting time. The woman whose affairs at home demand her speedy return, or whose social circle claims her time, soon becomes nervous if she has reason to think the dentist is dilatory.

Everything in the world around us indicates that the age in which we live requires our greatest possibilities, especially when we have not only our own time, but that of others in our keeping; it is our duty to use that time to its best advantage, and to use as little as possible.

Even if our patient's time is not worth a dollar to him, the question of our own still remains, and duty to self demands that we make as many dollars in the hours devoted to business as we honestly can. Moreover, what greater satisfaction can a man have to repay him for a day of close application to business than the consciousness that he has accomplished all he could reasonably expect, and by making the best use of his time he has two hours left for recreation.

The art of making haste without hurrying, or of accomplishing the greatest amount of work in a given period is a study, perhaps a natural accomplishment possessed by some, while to others, much careful thought and application are necessary for its attainment.

The first requirement is that the operator's mind be trained to act promptly and with precision. Much time is wasted unless he is

able to quickly and correctly map out each stage of the operation at hand in such a way that every step taken is progressive, and each stroke a telling one. After a few seconds thoughtful observation, he must decide on the method of procedure, and the instruments best adapted for the purpose, and, as far as possible, place them for use.

The selection and arrangement of instruments is perhaps the first consideration, and I think the number of them should be reduced as much as possible. The young operator is pretty sure to have in his cabinet a great many forms of instruments that are not useful to him. He should, by careful study, adopt the use of those he finds will best aid him in his work, and remove from the drawers everyone he finds not specially adapted to his methods. If this be not done his cabinet will become encumbered with instruments, many of which are never used, and serve only to obstruct and confuse. I do not mean by this to discourage the trial of new forms; this should constantly be done, and their use adopted when found satisfactory.

Engine burs should be kept in regular order, a row in the rack for each form, graded according to size.

The use of an assistant can be brought to an almost unlimited state of perfection. A wide-awake boy or girl, who has been well trained, may in various ways save the dentist's time, taking care of instruments, washing them and keeping them in their places, and passing those wanted during an operation; prepare the filling materials for use, passing medicine and other preparations, which the operator should call by an affixed number, thus avoiding the unpleasant disturbance of the patient's mind by hearing a drug of fearful name asked for; prepare absorbent materials, assist in adjusting the dam, etc.

Ventilation of the operating-rooms is also desirable, which the assistant can attend to as each patient is dismissed. Health also requires much care. A dentist must not expect to accomplish much, if by any reason his physical strength is at low ebb. Mind and body are alike strained, and the nervous energy often severely taxed. The ambitious man must carefully watch his strength and regulate his practice to suit his ability to bear. A dentist may have strength enough to enable him to continue at work, but to do this rapidly and well he must have reserved power and energy.

The mental forces should be allowed relaxation at regular intervals. To accomplish this an entire change of thought is required, which may be obtained by various means, as activities which may give direct play to other faculties than those used in the practice

of our profession—music, painting, botany, or even the much-followed photography. These will vary the line of thought, and give rest to overworked nerves, besides developing faculties otherwise unused. Physical exercise should be taken daily in some form, by gymnasium practice, bicycle, horse-back riding, or some favorite vocation. Overstrained nerves produce irritability which will act directly on a patient. One's physical and nervous condition may be reflected and observed in the condition of another as quickly as the administration of an anesthetic. Anxiety of mind is also easily reflected by the patient.

The power of a healthy, well-balanced mind over one which often has been strained and racked before coming to ask our assistance, is as yet not fully realized.

To have at his command reserved vigor will enable the dentist to push to successful and rapid completion a difficult and tedious operation, which must drag if he has not.

—Frank Perrin, in *International*.

PROSTHETIC DENTISTRY.

In taking impressions for partial plates, where the teeth are long and irregular, a good plan is to fill the spaces between the teeth with plaster, allowing it to harden—varnish and then take impression over all—after removing impression, take out the "cores" and place them in position—in impression.

Oil should not be used on impressions or bites, as it softens the plaster coming in contact with it—and its uneven flow prevents obtaining a correct model—collodion, sandarac varnish or soap are better, but I prefer a thin shellac varnish—paint the impression and soak in water a few minutes, and then run cast; as soon as it hardens, remove impression—result—a hard, smooth model.

Rubber plates should be of uniform thickness, care being taken in waxing up, to avoid unevenness.

Surfaces coming in contact with the mucous membrane should be smooth. A cast washed with a thin solution of silex, just before packing with rubber, will produce a smooth and polished surface without altering the shape of the model.

Dr. Andrews seldom uses sections; uses one thickness of wax and does not use the blow-pipe or spatula after waxing. This gives evenness and strength to the plate. Always use wax and plaster-of-Paris.

Dr. Jones uses mandrel for making cavities in porcelain teeth, and uses corundum flour and water.

—Ohio Journal.

LOWER ARTIFICIAL TEETH.

If there is any one thing in the experience of the dentist that is especially annoying it is pertaining to the insertion of *lower teeth*, full or partial.

The patient cannot, as a rule, derive the satisfaction from their use that results from the use of the upper set. As I say to them in explanation of the subject, the upper set covers a large surface, and is held in place by atmospheric pressure, while the lower set, generally, sets on a narrow ridge, with no atmospheric pressure except in rare cases, and is easily moved by the action of the muscles.

In rare instances there is found a broad, high ridge; such cases are, of course, favorable, but my experience has been more with cases with no ridge at all, but flat and sometimes depressions. For some reason, not satisfactorily explained, there is more absorption in the lower jaw than the upper, even when no plate has been worn, as is often seen in those cases where the bicuspid and molars have been missing for many years.

Additional *weight* is an advantage in lower dentures. It is absolutely necessary that the plate should be sufficiently narrow not to be lifted by the muscles, and specially on the lingual side, where often exists a mass of membrane which lifts higher than the top of the ridge. On the labial side the muscles, and even the membrane lifts almost to the margin of the ridge by the movement of the lips. I have had occasional cases where the outer margin of the plate had to roll upward instead of downward.

And yet with all these disadvantages it has seemed to me preferable to wear a full set rather than a partial. Though I have not advocated the extraction of the six anterior teeth, I have seen cases where I was sure the patient would have better success with the pressure distributed over the whole surface rather than on the posterior alone. Then again the partial sets are always giving way under the pressure they receive, and as the plate settles, the portion of it which passes behind the anterior teeth will crowd upon the membrane at the necks of the teeth. For this reason the plate should never be fitted just to the necks of the teeth as is often done, for then great harm results from the points pulling on the membrane causing injury to it and discomfort to the patient. These plates should be extended well up on the necks of the teeth. The plate will set the steadier for it.

Recently, however, in view of the trouble and annoyance so often arising from wearing full sets, I have been greatly impressed

with the value of retaining even a single tooth if it be firm, or a root, to secure anchorage for a plate.

My attention has been specially directed to this in the use of the method of Dr. Stedman, of Laporte, Indiana, which I am sure is proving a complete success, and great relief from a long-felt need.

The method is this : Instead of using an ordinary clasp of platinized gold, a band as wide as the full length of tooth, even though it does show, and extending around the tooth, or as far as an adjoining tooth will admit, but always open made of 24-gauge gold without platina. Solder a spur to the lingual surface to hold it to the rubber. Take the impression with the clasp *on the tooth* as this is the only method of securing the perfect adjustment of a clasp to a rubber plate. If only a root remains crown it, and fit a band to it as before described. If the tooth to be used as an anchorage is badly shaped, for a band to be fitted to, *crown* it first. I have had success with this method such as I never realized before.

—Prof. L. P. Haskell, in *Ohio Journal*.

REFLEX NERVOUS ACTION.

Mrs. P., aged 32, was taken with pain in back of head and neck. A physician pronounced it neuralgia, and treated her several months, the patient, meantime, growing worse. A third M.D. called it spinal affection, and doctored her the remainder of two years. She then became insane. Then the physician advised her husband to take her to an asylum, but they took care of her at home. After she had been insane two weeks, she became rational one morning, and remarked, "I am going to Romeo to have my tooth pulled." This was the first complaint that had been made about the tooth. I was called to the house and extracted a right lower wisdom tooth, with an abscess attached on the apex of the root as large as a green pea. This abscess had discharged through the tooth just enough to prevent its breaking elsewhere, but not enough to relieve the pressure ; and the pain was reflected, first to the back of the neck and back of the head, and finally to the waist and elbows. The removal of the tooth ended the whole trouble, and twenty years after the symptoms had not returned.

Mr. B., seated in the chair, preparatory to having a tooth extracted, said : "I have had pain in my right elbow for three months ; some of the time it has been swollen and lame, so that I could not feed myself with my right hand. I have not had a bit of pain in my tooth till this morning. Now I want to know if there is a nerve running from my elbow to my tooth, as a part of the time

the pain is in my tooth and a part of the time in my elbow?" Its extraction soon proved there was.

Mrs. S., aged 29, suffering with a toothache for several days, came nine miles to have it extracted. It was evident at a glance that she was suffering from chorea. After three or four minutes she became quiet, and her friend remarked, "She has been in this condition for three days; please extract her tooth as soon as you can, and I will tell you about it afterward." As I put the forceps to her mouth, the spasm came on again. As soon as it subsided, I extracted the tooth. An expression of relief came over her face at once. Her friend then remarked, that the tooth would ache three or four minutes; the moment the pain left the tooth, she would commence to whip her hands together, and keep it up till the pain returned to the tooth. As soon as the tooth commenced to ache, the hands became quiet. This had gone on for three days, and her hands had become so sore that when she struck them together she would cry out like a child.

Mrs. A., aged 49, came for consultation about her left eye. It had pained her for two or three weeks. Examination revealed the fact that the pupil was drawn out of normal form, the larger diameter being double that of the lesser. Yet no inflammation was perceptible. Though she declared she had no trouble with her teeth, yet examination proved that the crown of the upper sixth-year molar was two-thirds wasted away, and the pulp very largely exposed. She would not be persuaded to have the tooth removed; and two weeks from that time, a darkness came over that eye, and she never recovered the use of it. Had the tooth been extracted in time, undoubtedly the eye would have been relieved.

—I. Douglas.

PERSONAL CLEANLINESS—Thus ought to be of interest to every dentist. It is of the utmost importance, and means, oftentimes, success or failure. Some people are naturally careless and uncleanly, and can't appreciate the nice distinction between being clean and orderly; they should reform. Others again, are unclean because they allow the push of a business that requires all their time, to interfere with order and the necessary attention to decent toilet preparations. The man who is unclean because he knows no better, or it is a part of his make-up, may be excused, perhaps, more than one who allows the demand of business to so encroach upon the requirements of decency so much as to neglect to keep himself and his surroundings acceptable to his patients. If you have no time to keep your office clean, employ an assistant to look after

this, and perhaps relieve you of some other unnecessary labor, in order that time may be had in which to make yourself acceptable to your patients. A carefully trained office assistant is a necessity and a blessing, as well as a luxury.

Personal health, which makes one unacceptable or disagreeable, demands careful attention. Bad breath is especially disagreeable, and can generally be avoided. When a disagreeable breath results from objectionable and filthy habits, it ought not to be tolerated for a moment by any self-respecting person.

A well-known dentist was called on by a colored girl for some dental treatment, and because of the careful toilet preparation he made before and during the treatment, he so impressed the girl that she related the fact in the wealthy home where she lived, and, as a result, a large and wealthy connection became the dentist's patrons.

—J. Taft, in *Ohio Journal*.

FILLING A BICUSPID; PULP NEARLY EXPOSED.

My treatment of the case is as follows: Dry the cavity, remove all debris and as much of the softened dentine as is consistent with safety.

Now the next and a very important step is to disinfect thoroughly the cavity, especially the deeper portion so that no infected dentine may be left near the pulp. This is done by placing in the bottom of the cavity a small pledget of cotton saturated with an essential oil, cinnamon, being the one used in my practice more than any other, and sealing with gutta-percha or cotton saturated with a thick solution of sandarac. Now pack in the cavity and against adjoining tooth cotton only moistened with sandarac varnish, and by the time the patient returns the teeth will be nicely separated and without soreness or pain.

In four or five days place rubber drawn over the necessary teeth, remove the dressing, dry thoroughly, and trim enamel margins, cutting the strong material labially, and lingually cut so that the margins of the cavity will be well removed from the line of near approach and contact with adjacent tooth, or to the proximo-labial and proximo-lingual angles.

Now take a piece of gutta-percha of thickness of heavy note-paper, moisten one side with eucalyptol, and lay with moistened side toward dentine, in that part of the cavity near the pulp; mix and place immediately over this a layer of oxyphosphate of zinc of a considerable amount.

If a quick setting cement is used it will not be necessary or even desirable to postpone the filling of the cavity till a future sitting, but while the cement is setting cut out the fissure sufficiently to insure when filled an easily cleansed surface and shape so that this groove when filled in connection with the main cavity will add to strength and retention of the filling. Make the necessary undercuts and by this time the cement is hardened so that you may proceed to fill.

What shall we select as a filling material?

There is only one that can be relied on, viz: gold.

What form of gold?

The cervical margin and angles of the cavity should, without question, be covered with some form of non-cohesive gold, so it is best to fill one-third or more of the cavity with the non-cohesive gold, after which the rest should be filled with cohesive gold, contouring so that contact will be had with adjoining tooth at a point usually about two-thirds the length of the crown toward the grinding surface and two-thirds the distance toward the buccal surface.

Much depends on the filling being finished smooth, and even with the margins of the cavity.

The careful use of disks, strips, stones and burs may well be supplemented at the cervical margin where it is so necessary to use extreme care in getting the proper finish and avoid lacerating the gums, by a file-cut instrument used with a drawing stroke.

—W. J. Phillips, in *Review*.

TO PREVENT DARK JOINTS IN RUBBER WORK, and to prevent breaking blocks, grind and match the blocks together accurately. Bevel the corners toward the ridge slightly. After the job is flaked, put in warm water till warmed through. Separate as soon as warm enough. Peel out the body of the wax; wash out the rest of the wax with boiling water from one foot above. With a thin instrument press a No. 50 cotton thread into the v-shaped groove, letting the ends of the thread dip into the plaster on both sides, or at the ends. Cut a groove into the plaster next to the half of the flask that contains the model, to receive the surplus rubber. Make waste-gates every one-fourth inch all the way around, making them the shape and size of one-half a No. 9 iron wire, or even larger. Be careful not to put in so much rubber that the excess will fill the trench. Have your flasks hot, and give the rubber plenty of time to move; it will not move quickly under pressure, except by too great force.

I. Douglas, in *Ohio Journal*.

ANSWER TO QUESTION 25 IN NOVEMBER ITEMS, AND
SOMETHING IN FAVOR OF COCAINE.

I have had a little experience with Steinan's local anesthetic and would like to make it known to the profession, as nearly the same formula was published in October ITEMS, page 588.

Its use was almost invariably followed by swelling of the face, in some instances excessive and persistent. In one case a slough, the size of a three-cent piece, dropped out, uncovering the bone. My experience with it ceased there.

About a year ago, my friend Dr. Mitchell, chemist of Parke, Davis & Co., of Detroit, informed me that his people had succeeded in discovering and removing from cocaine an alkaloid which was the cause of the unpleasant results that sometimes developed from its use. A sample given me was divided with a *confrère* who does a large amount of extracting. After continuous use for more than a year, neither of us has had anything to occur in the least annoying or alarming. We use the 10 per cent solution with two or three drops of alcohol added to the drachm to prevent cryptogamic formations.

This may appear heroic in strength to some, but I never have been able to get perfectly satisfactory results with a weaker solution. The needle may be inserted almost painlessly if, after entering the point, a portion of a drop of the solution is expelled and the operation suspended for half a minute to allow absorption of cocaine.

I have no interest in the matter except the good of the profession, and would like to hear from those who try it.

This cocaine is called LARGE crystal, to distinguish it from the ordinary article.

J. A. Sampsell, New Orleans.

EXTRACTING A PANTHER'S TOOTH.

Barnum's circus brought to Chicago a big, yellow South American panther with a bad tooth. The tooth was in the left of the upper jaw and it was black with decay and had a hollow in which a meal might be lost. It hurt so much that he howled through the nights. Veterinary Surgeon S. S. Baker was sent for. The panther crouched in a corner and glared at the rest of the world with vicious eyes. The boss of the menagerie got a crowd of stake-

men around the cage and lured the panther to the bars, when a noose was thrown around one of the sinewy legs. Then the panther began to fight. He struck blows as quick as the stroke of an adder and as ponderous as a sledge blow at the bars, and his thin face split and showed a cavernous passage that looked like an alley in a slaughter house. He was a mean-looking brute as he lay there gnashing his great teeth and straining his lithe body in an attempt to destroy the big, bony men in the blue overalls who were slowly harnessing him. But they wore him out and bound him tightly, passed a collar around his neck and a wooden gag through his teeth. Then the boss canvasman invited the horse doctor to step in. The horse doctor took off his coat and climbed into the cage where the wild-cat was writhing in the bonds. After some parleying with the panther and dodging the sharp teeth that were occasionally driven at his hands the doctor got hold of the tusk and began to twist it out. The big brute lay quiet for a minute, but when the roots dragged at the hard flesh with a sound like canvas tearing on a nail he twisted and gnashed and tugged at the ropes till the muscles of the canvasmen were strained to their utmost. After awhile a piece of the tooth came away. Then another smaller fragment was dragged out, and then the horse doctor plunged in his probe and pried away the roots with some meat and a great deal of blood. He climbed hurriedly out of the cage, dodging a friendly swipe from a panther in the next apartment. The doors of the cage were locked and the panther was released. There wasn't much fight in him. He looked weak and weary, and blood was gushing from his jaws. He is seventeen years old, and the tooth taken from his face was about five inches long.

HOW TO EDUCATE THE PEOPLE.

The article under above head, by Dr. J. A. Osmun, in October *ITEMS*, asks: "How can this be done?" This can best be accomplished with the rising generations by teaching them, in our public schools, the pathological as well as physiological changes to which the teeth are subject. Teach them everything pertaining to a pathological condition of the dental organs. When this is done, the public will be sufficiently educated in this direction.

Much knowledge might be transmitted to the public through the press. But suppose some eminent dentist should write for the press an article treating on this subject, what would be the result?

The profession would jump on him with both feet, and howl that he was advertising. What nonsense!

The honest dentist meets with two classes of professional men he has to combat: 1st. Physicians who fail to examine the mouths of their patients for causes of disease, or to advise them of the importance of saving their teeth. This could hardly be otherwise, however, when we consider that the average physician knows little more about the teeth than do his patients. 2d. We have ignorant blockheads of dentists. Can we wonder that the people are ignorant in regard to their teeth?

Instead of educating the public, too many dentists come to them with such advertising as this:

Dr. G—— extracted sixty-five teeth on last Saturday.

Nitrous-oxide gas for \$1 at G——'s Dental Parlors. Dr. G—— extracts teeth for 25 cents.

The impression has gone out that Dentist G——'s charges are too low. Well, if *he* can stand it, *you* certainly can.

Here is what we find on a large sign-board that adorns the passage-way leading to the office of one of these quarter-of-a-century men:

Dr. B—— for fine dental work. *Extracting*, 25 cents.

How can we expect the public to consider their teeth of any value when the physician and dentist does not value them at over twenty-five cents?

D. F. Smith, Centerville, Iowa.

TAKING A BITE.

The most accurate is that practiced by Dr. P. A. Poole, of Buffalo.

The bite is taken in the ordinary way with wax, marking the medium line and also the length of the lip. It is placed on the cast and run. Before opening, wax a narrow strip of paper on the top of articulator and let it extend over the front to the mark in the wax indicating the length of the lip. Open the articulator and the paper represents the lip, accurate and simple. This is the most precise method I have yet seen, and there is no necessity of trying in the teeth as they cannot deviate a particle. Dr. Poole has practiced this for many years, and has had universal success. He certainly deserves much credit for his ingenuity in discovering a method that abolishes guess-work and discouraging procedures.

C. H. Stadlinger, D.D.S., Buffalo, N. Y.

A QUEER CASE.

[The following comes from Massachusetts. Can any reader of the ITEMS answer it? E. N. F.]

A lady wearing a set of upper teeth visited office intending to have four or five lower front teeth extracted for the purpose of having an under set inserted. Had never worn any on lower jaw though back teeth had been gone many years. While examining her mouth I discovered on each side, back of under teeth, a roll of what I supposed to be mucous membrane that by the movement of the tongue was lifted and forced out, protruding beyond and over the front teeth. It is in size nearly as large and about one-half the length of the little finger; very soft and no difference in appearance to the rest of the mouth. When her attention was called to it she was surprised, never before being conscious of it, became nervous and decided not to have the remaining teeth out; thought she would not be able to wear teeth and had a "fear of something" if teeth were extracted. I have seen loose folds or layers of membrane and a tumor the size of a large filbert, with long small attachments that could be thrown by the tongue outside of the mouth, but never anything like this.

Can these bags be removed by surgery or absorption? Has any one seen such a case or made teeth under these conditions?

FILLING PULP CANALS.—The plan given by Dr. Taylor, at the meeting of the Central Illinois Dental Society, at El Paso, about seven years ago, has never been excelled in the experience of the writer of this paper. After drying the root canals thoroughly, Dr. Taylor recommended flooding them with volatile eucalyptol. Waiting a few moments to allow the fluid to reach the most distant part of the canals, the surplus is absorbed with spunk, and chloro-percha inserted in the usual way. The eucalyptol, being a solvent of gutta-percha, enables the filling material to find its way to the uttermost limits of the pulp canal, and so capillary attraction comes to the assistance of the dental breach. By utilizing the forces of nature, combined with common sense and a skillful touch, even a pulpless tooth with a tortuous canal in its most inaccessible root may often be persuaded to become a peaceful member of the dental family, and from being a disturber of the peace and a disquieting element in the human economy, be brought into subjection and made a useful and honored resident of Dental row, on Digestive avenue.

W. A. Johnson, in Review.

SOME OF THE USES OF ARISTOL.

The chloroform solution of aristol instead of sandarac varnish for saturating cotton used for wedges or temporary stoppings in retaining medicaments during treatment is good. A pledget of cotton saturated with aristol dissolved in chloroform on evaporation of the solvent, has its fibers held together by the peculiar resinous character of the aristol, in which condition the pledget perfectly fulfils the physical requirements of a cotton and sandarac wedge, but with the special advantage that it is entirely antiseptic. Such a dressing or wedge may be retained in the mouth for days or a full week, and when removed is entirely free from offensive odor, while the peculiar fetor which arises from a similar application of cotton and sandarac is a constant drawback to its use, sufficient to bring about its disuse by many operators because of the annoyance to themselves and their patients. The antiseptic nature of the aristol dressing is shown in its effect on the gum-tissue in those cases where proximal caries has extended beyond the gum-margin, and when hypertrophy of the gum festoon occurs to the extent of causing a polypoid growth which extends into the cavities, sometimes completely filling them, as is frequently seen in caries of the sixth-year molars of children. In such cases it is not even necessary to extirpate the growth by operation—an advantage in the case of a nervous patient, but simply to pack firmly into the cavity and proximal space an aristol and cotton dressing, and dismiss the case for several days, when on removal of the dressing it will be found entirely devoid of offensive odor. The fetor characteristic of such cases will be gone, and the gum-margins will present a normal healthy appearance with the cavity fully exposed to view. To increase the adhesiveness of the aristol solution, a small quantity of Canada balsam may be added; this I have not found necessary for its use in connection with cotton dressings, but it has some slight advantage when used for coating paper or asbestos felt for pulp-capping, or as a varnish for lining cavities in connection with gutta-percha filling, where it answers a valuable purpose. As a pulp-capping varnish, a solution of aristol in collodion may be used, but the chloroform solution made as thick as syrup, flowed over paper and applied over the point of exposure, and the solvent evaporated by a current of warm air, has been more satisfactory to me than the collodion solution of aristol used in the same manner.

—Dr. E. C. Kirk, *Ed. Cosmos*.

ARE GAS FURNACES A SUCCESS?

Of the various points on which I corrected Dr. Land, he has attempted to reply to two. What is called gasing in this country is the combination of the sulphur in the fuel, with the oxides used for coloring. If a pure hydrocarbon fuel, perfectly free from sulphur is used, and this fuel is perfectly burnt so that the atmosphere around the work is not a reducing one, all colors come out perfectly.

Dr. Land ignores this fact, and refers to what he calls gasing by solid carbon or unburnt fuel, causing a reducing action on the colors used, and this is properly called reducing or deoxidizing, as distinct from gasing by sulphur; to reverse the titles does not alter the facts, nor does it affect the correctness of my criticism.

That the cracking or crazing of muffles is caused by sudden and unequal heating is too well known to admit of discussion. I could treat a small muffle in the way Dr. Land describes, but it would be too porous in texture to be reliable for continuous gum work. I could make a fire clay muffle, which would be fit for cupeling, which would stand nails being driven into it, and which could be cut with a chisel, planed, or screwed into position with common wood screws, but I should not use it for fine enamels, and I can only repeat that muffles, dense and compact enough for enamels and continuous gum work, will, and do, crack through sudden heating.

Thos. Fletcher, F.C.S., Warrington, England.

I would suggest, gentlemen, that we convey to our female patrons our best thought and knowledge concerning the early decay of the teeth. How many of our patrons ask this question; should they not know it? Are we to keep them in ignorance of the laws governing the formation of new structure? Women are the life-blood of our existence, and we know it. No matter how much knowledge is conveyed to them there are many who would pay no further heed to it. Many are grateful indeed for the new enlightenment. Shall we keep this knowledge from those who ask it? Shall we plead ignorance of the cause? Shall we say it must be hereditary, or be evasive and call it constitutional disturbance? No, gentlemen, it ought to be our duty to instruct those who seek advice. "Many will listen, but few will heed." I hear some one say: Never mind, our efforts are appreciated for all that.

—Dr. C. A. Southwell, in Review.

Items.

I have a patient in which the upper lateral incisors and cuspids have changed positions. What can I do? Anything? Are not such cases extremely rare?

A. M. Bush.

In preparing cavity for a proximal filling I exposed the nerve. I touched it with sulphuric acid, then washed thoroughly with water; filled without any inconvenience. What will be the result?

U. S.

Pyorrhea alveolus is successfully treated by removing all foreign accumulations attached to the teeth, then thoroughly inject—with iodine decolorized—the alveolus, using hypodermic syringe. that is my experience.

U. Smith, Fresno, Cal.

Of all the journals which I take none compare with the *ITEMS* for practical thoughts and hints. And, as some one has expressed it, "it is the cream of dental journals."

Success to you.

A. M. Bush, D.D.S., Washington C. H., Ohio.

The following advertisement appeared in the *Daily Dispatch*, Columbus, Ohio:

WANTED—DENTIST—To work as skilled specialist in quack advertising office. Don't really need to know much. Q., this office. 17eod3t*

Some months ago I extracted the two lower central incisors from the mouth of a boy between five and six years of age. They had been broken loose some six months before, and were a constant annoyance till extracted. They are perfectly united from the neck to within a line of the apex.

W. H. Shaffer.

CATARRH SNUFF.—Take of boracic acid, naphthalin, āā 4 dr.; camphor, extract violet, āā 2 gr.; essence rose, q. s. to perfume. Mix. Take a small pinch and snuff well up each nostril, then cleanse the passages by blowing well and thoroughly, after which, use the snuff freely, drawing well back into the posterior nares.

—Ind. Pharm.

How to keep rubber dam. A grand suggestion. Put it in a glass jar, and fill it with water, and then close the jar up air-tight, and let stand in a cool dark place for two weeks, and then open the jar and rinse the rubber in clean fresh water. Put the rubber back

in the jar and fill with water, and keep as before. I have a sample of rubber that I have kept over five years in this way that is as good as new.

Dr. R. R. Rykert, Attica, N. Y.

EDITOR ITEMS:—Can you, or some one else, tell me if platina can be melted and poured, and, if not, will the addition of a little bismuth (which will make it pour easily) hurt the strength of the plate, or in any way injure it?

C. A. Marvin, Farrington, Conn.

It has been the aim of metallurgists for a long time to make platina melt so as to flow; but, so far as we are informed, without success. What say others?—ED. ITEMS.

Gum Tragacanth to Assist in Gaining Suction for Upper Dentures.—In cases of flat and hard mouths it is often troublesome for the dentist to make the denture stay in place, especially if the patient has never worn one before.

Moisten the roof of the palate, and sprinkle it thoroughly with the powdered gum and insert it in the mouth, the gum being very sticky and perfectly tasteless, it holds the denture in place till the patient learns to use it.

—*Dr. C. H. Darling, in Review.*

Miss Edith J. Hutchinson went from Farmington to Madison with a piece of gold which she took from the mines at Swift river with her own hands, and had it inserted into the cavity of a tooth. The piece of gold was placed near the center of the cavity and filled with gold prepared for that purpose. The doctor who performed the operation says he believes Miss Hutchinson is the only lady in the land having a gold filling, a part of which she took from the mines with her own hands.

NASAL POLYPI.—Bell describes a new, painless and simple method of removing nasal polypi. His patient is instructed to blow strongly through the affected nostril, while he closes the other with his fingers. This brings the polypus down so that it can be seen. He then injects into the tumor, with a hypodermic syringe, fifteen or twenty minims of a solution of tannin in water (twenty grains to a final dram). In a few days the tumor shrivels, dries up and comes away without trouble or pain to the patient, usually removing it with his fingers or by blowing his nose.—*N. Y. Medical Times.*

COMBINATION OF CEMENT WITH AMALGAM.—Mix the amalgam in the usual manner, avoiding an excess of mercury, whereas the cement is mixed perhaps slightly thinner than usual; the two are then thoroughly incorporated by means of a stiff spatula. The

amount of amalgam used is, in bulk, about one-third to one-half that of the cement. The material may also be prepared by simply dropping the amalgam already mixed into the liquid of the phosphate cement, and then incorporating enough powder to make a stiff paste. The filling is inserted in the same manner as a simple cement filling.—*Cosmos*.

I saw lately one of the neatest little pieces of homemade dental work that one could imagine. A gentleman of this place having lost a lower lateral incisor, and not wanting a plate or bridge, hit on the plan of fitting a piece of bone to the space, hollowing it on each side to fit adjoining teeth, with a broad, hollowed base, fitting the gum, enabling him to bite on it, as he says, "just as well as with my natural teeth." Being nicely shaped and polished, its presence is not discernible to an ordinary observer and entirely prevents lisping. Being a public speaker, the latter was the object aimed at. It is unique in my experience. *W. R.*

THE USE OF ETHER IN PREPARING TEETH FOR CROWNS.—In November *ITEMS* Dr. Webber, of Cherokee, Iowa, relates a case in which he ground off four teeth preparatory for crowns, the pulps being alive and the patient under the influence of ether; the time being one hour and ten minutes.

I would like to ask if it was necessary to run all this risk to accomplish the desired result? Would it not have been better to have devitalized the pulps the first step? Then the grinding could have been accomplished with but little annoyance to the patient. To me, the thoughts of grinding the teeth with the nerves alive seems cruel and unnecessary.

W. H. Rowand, Bellefontaine, O.

DENTISTRY AND DOLLARS.—The dentist who values his time and advice is the man who is appreciated.

He who sells himself for nothing, generally gets all he is worth.

He who goes for half-price, when patients are able to pay a reasonable fee, goes for more than he would bring on the market.

A community never values a dentist higher than he values himself.

He who works for love may gain the reputation of a good Samaritan, but good Samaritans are not all good dentists.

No greater mistake was ever made than to impress the community that dentists are poor business men. Straightforwardness, promptness, reliability and firmness are elements by which a man's qualifications are determined.—*Exchange*.

Monthly Gossip.

BY WM. E. BLAKENEY, D.D.S.

THE DENTIST who indulges in small talk to his patients generally receives small pay for his work.

MARCHAND'S PEROXIDE OF HYDROGEN, thrown into the cavity, is an excellent cleansing remedy.

THE LONGER A MAN HAS BEEN DEAD the less positive his friends are that he is with the angels.

DR. J. E. SHOEMAKER (Journal of the American Medical Association) says that "Carbolic acid solutions, as practical sterilizers, are a delusion and a snare."

"NO DOUBT," SAYS DR. H. A. SMITH, "the living tissues exert a great influence in checking the development of bacteria in the diseased conditions, but it is only when we fully recognize the phagocytic action of the white blood corpuscles that much which is obscure in treatment is rendered comprehensible."

DR. C. N. PEIRCE, of Philadelphia, says: A college system should result in the graduation of students wholly on merit, a college system free from monetary influence. The State Boards should keep in mind that they have been created to protect the interests of the people and that this must be done regardless of the influence their action may have on particular schools or men.

DR. RHEIN, of this city, is of the opinion that "alveolar abscesses are often confounded with pyorrhea alveolaris, and are treated for that without ever looking to the real source of the trouble."

IN pyorrhea alveolaris, some authors are opposed to "catarrhal" in describing the clinical appearance. They consider catarrh a special disease of membranes, which ultimately leads to ulceration. "This is not so," says Dr. J. D. Patterson, "it is simply a condition of discharge, and not a disease of special cause."

"A TEMPORARY PURPOSE which is served by gutta-percha plain, better than when in combination with wax," says Dr. R. Ottolengui, "is where a patient has dangerous cavities, in which a pulp exposure may occur at any time. It is impossible to fill them all at one sitting with permanent materials. It is very wise, however, to cleanse them all of decay, and fill with gutta-percha. Thus all is made safe at once, and the permanent fillings may be placed at leisure."

EDWARD S. NILES, D. M.D., believes that the discoloration of gold in the mouth has never been satisfactorily explained. Assuming that all gold used for fillings are essentially pure, he accounts for the discoloration in some mouths because of nervous disorders. "We know," he says, "that the chemical properties of nerve-matter are mainly phosphate of lime or phosphate of magnesia, and a nervous disease would naturally excite the elimination of these substances from the nerve tissues in various forms."

I QUOTED DR. M. L. RHEIN, in the last number of the *ITEMS*, as saying that chloride of methyl, when inhaled, produced local anesthesia, and that it was possible to lower the temperature, by its use, 40° F. below zero. The doctor writes me he never claimed that the drug would produce local anesthesia, and that its volatilization will reduce the temperature 70° F. below zero. I exceedingly regret having put words into the doctor's mouth he never uttered. The quotation was taken from a dental journal and I supposed it was reliable.

FRANK PERRIN, D. M.D., claims that "the operator's mind should be trained to act promptly and with precision. Much time," he thinks, "is wasted unless he is able to quickly and correctly map out each stage of the operation at hand in such a way that every step taken is progressive, and each stroke a telling one. After a few seconds thoughtful observation he must decide on the method of procedure, and the instruments best adapted for the purpose, and, as far as possible, place them for use."

PROFESSOR PEIRCE claims that there are hundreds of molars that have the germs started and are never completed. "I find," he says, "in my practice third molars coming through at fifty years of age, due to the absorption of superimposed tissue. They are imperfect in their development, which is an evidence of tendency to suppression. I think it is universally conceded that the third molar is invariably smaller than the first or second. The durability, too, is doubtful. Which tooth after the age of twenty-five is the one most frequently lost? The third molar. It is the perishable tooth subsequent to that age, or rather between the ages of twenty-five and forty."

WM. SCHLEPPEGREL, A.M., M.D., of New Orleans, has faith in the germicidal properties of turpentine to sterilize surgical instruments. He says a bacteriological examination made four weeks after his first trial, compared with the examination of cases not provided with turpentine, was so satisfactory that he now applies it to drawers containing towels, gauze, bandages, etc. He puts the

turpentine in large, flat-mouthed bottles, which are kept at the bottom of each drawer, the volatility of the turpentine causing the vapor to impregnate the surrounding air. This, he claims, completely sterilizes his instruments.

THE FOLLOWING FORMULA, by J. Wilton Hope, M.D., for local anesthesia, is published in the December *International*:

R Hydrochlorate cocaine, 5 parts;
 Crystal, carbolic acid, 6 parts;
 Pine gum camphor, 6 parts;
 Ninety-five per cent. alcohol, q.s. to make 120 parts. M.

"Inject one to three minims of the mixture with a hypodermic syringe deeply into the gum on the inner and outer sides of the tooth. Apply over the gum a piece of absorbent cotton, wet with the solution. Wait four to five minutes when the gum can be freely incised and the tooth drawn with a minimum amount of pain."

IN AN ABLE PAPER entitled, "A Plea for Conservatism," published in the December issue of the *International*, Dr. W. C. Barrett says he does not believe the entire absence of all organism can ever be assured. "We cannot," he assumes, "control the processes of nature. We can only influence them to a degree. We cannot, for instance, furnish the proximate principles of the body from without. We can only supply the proper pabulum, and from that allow the nutritive system to select and prepare its own material. The attempt to harden the bones of the body by giving phosphate of lime is a hopeless task, and it is quite as much so to undertake the extermination from the tissues and organs of the body of all the micro-organisms, either of pathogenic or non-pathogenic nature."

I have been using for mild cases of periodontitis, for the past few months with good results capsicum pads made thus:

Take a raisin, cut it lengthwise into halves, remove the seeds from the half to be used, and into the pulp, with suitable instrument, work ground capsicum and ground ginger, equal parts, and apply the medicated side directly to the root of the tooth affected.

The skin of the raisin prevents the medicine from passing through and irritating the cheek and lip.

They stay well where placed and easily adapt themselves to the unevenness of the gum.

W. H. Gage, *Le Raysville, Penn.*

I take great interest in the "Question Box" of the ITEMS, and have received many valuable ideas from the answers.

C. O. Carr, *D.D.S., Massillon, O.*

Our Question Box.

WITH REPLIES FROM OUR BEST AUTHORITIES ON DENTISTRY.

[Address all questions for this department to DR. E. N. FRANCIS, Uvalde, Texas.]

Question 1. *A case of extensive decay of the distal surface of first superior bicuspid, the mesial and distal surface of second bicuspid, and the mesial surface of first molar. Is it better to fill these cavities, taking the risk of future decay, or to extract second bicuspid with the expectation that space thus made will increase the duration of fillings? How would this apply to the extraction of second molar in case of similar decay in it and other molars?*

Better to fill in both cases.

Frank Abbott, New York city.

Would fill bicuspid and molar, knuckling the fillings at grinding surfaces, and leave space at and above gum for cleansing with toothpick. Would not extract. Same treatment for molars.

—Wm. H. Cooke, Denton, Tex.

I would extract the second bicuspid, with the hope of being able to save the other two adjoining. In reference to the molars, I could not say without first seeing the case.

Henry A. Lawrance, Athens, Ga.

In the mouth of a young person, the arch being narrow already, as desirable, and the teeth of average density, I would fill. If patient is past middle age, the arch wide and teeth not up to medium in density, I would extract.

W. E. Driscoll, Monatee, Fla.

I most assuredly would not extract the second bicuspid if it could be crowned and made useful, for even a few years, unless in the mouth of a young person, or the teeth were badly crowded. These remarks apply, in the main, to second molars in a similar condition.

L. D. Wood, Grand Rapids, Mich.

It depends on the age and cleanliness of the patient, the quality of the teeth, the condition of pulps, etc. These being favorable, I should not hesitate to fill. If second bicuspid is too frail to hold filling and pulp is healthy, save it with a gold cap. The same applies to molars.

J. W. Gale, Chippewa Falls, Wis.

Fill distal cavity of first bicuspid; crown with gold or porcelain (Logan crown with collar preferred) the second bicuspid; fill mesial or anterior cavity of first molar, being careful to leave self-cleansing spaces between teeth and crown. Same method in all similar conditions posterior to first bicuspid.

W. T. McLean, Cincinnati, O.

Fill the cavities, after careful preparation, with submarine alloy, as prepared by J. Foster Flagg; and if further decay should follow (which is quite unlikely), roots may be crowned, but never extracted, as it spoils the contour of face, and ruins the arch, more than the little good, to be hoped for, would amount to.

Jerome Stuart, Kansas City.

Would extract second bicuspid if patient is under twenty years of age, for space will in some degree arrest approximating decay. Same rule would not apply to second molar, except in diminishing contact decay. I am of the opinion that I give better service when I cut off and crown (porcelain) all bicuspidis involved to the extent your question suggests, and this is getting to be more of a rule every year with my adult patients.

W. E. Snyder, Amsterdam, N. Y.

You do not state how extensive the decay is. In cases that come to me, I first separate with separating rubber; then, after soreness is gone, I remove decay, to see what condition it is in. If under gum, press away with cotton and sandarac. Although it depends on the condition the patient keeps the mouth, I usually prefer to save all teeth, and, unless they are crowded, I seldom extract.

Henry S. Abendschein, Baltimore, Md.

Question 2. *An inferior sixth-year molar, treated for young man, was followed by periodontitis, with some swelling, but no pus. The gum was lanced, after using a 4-per-cent solution of cocaine on cotton, and relief followed. Since then, a localized spot on inferior lip, opposite the cuspid, is entirely free from sensation, and the patient in masticating frequently bites his lip considerably, without pain. Can this be explained, and what treatment do you advise?*

Localized paralysis from cocaine. Let it alone. *Frank Abbott.*

Should think some nerve filament had been cut. If so, nature will restore it. *J. W. Gale.*

I suppose the cocaine caused the want of sensation. Would allow nature to restore sensation. *Wm. H. Cooke.*

I am unable to explain or advise treatment—except to extract the tooth—without seeing the case. *Henry A. Lawrence.*

I do not feel justified in using cocaine in such cases, and have had no such experience. *W. E. Driscoll.*

I do not attribute the application of cocaine on cotton the cause of loss of sensation upon lower lip. Counter irritation, or massage of the part affected, will probably restore sensation. *W. T. McLean.*

A case difficult of diagnosis from a description, but would judge the trouble to arise from partial paralysis of a portion of the submaxillary branch of the portio-dura of the seventh nerve, anastomizing with the inferior dental nerve—mental branch. Treatment, electricity. *Jerome Stuart.*

Do not think cocaine used as an application, not injected, is the cause of paralysis. A statement of your method of treatment might afford a clue to the trouble. Treatment followed by periodontitis, lancing and cocaine injection or application, is a combination that affords a deal of study as to results. Would suggest a little massage treatment of the spot with alcoholic local stimulation. *W. E. Snyder.*

I seriously question the wisdom of lancing when there is swelling without pus, and would have used aconite and iodine applied to the gums. Can

think of no reason for the paralysis without the mental branch of the inferior dental nerve takes a very unusual course and was injured in lancing. As to treatment, let it alone, and it will come out all right without there are other lesions.

L. D. Wood.

Question 3.—*A lad of thirteen has all his permanent teeth except the superior cuspids and third molars. The bicuspid impinge the laterals, and now the cuspids are trying to erupt.*

The arch seems well developed and the only way to make room for the cuspids is to extract first bicuspid or laterals. Which shall I extract?

First bicuspid.

Frank Abbott.

First bicuspid.

Wm. H. Cooke.

The first bicuspid always.

L. D. Wood.

I extract the first bicuspid but never the laterals or cuspids.

Jerome Stuart.

Extract first bicuspid on either side and assist cuspids into place.

W. T. McLean.

I should extract the first bicuspid if there is a prospect of forcing the cuspids into proper place; if not, remove the laterals.

Henry A. Lawrence.

I should be in no hurry to extract to regulate for "a lad of thirteen." Nature may hold some surprises for him. Give her a chance.

J. W. Gale.

I can hardly conceive of a case in which I would extract the laterals, but quite often have extracted the first bicuspid with a completely satisfactory result without other treatment. Where the arch is narrow I would not extract either laterals or bicuspid, but expand the arch.

W. E. Driscoll.

Another peculiar condition that requires a personal inspection to form a safe opinion; but am quite sure I would not extract a lateral if remedy could be made by loss of bicuspid. Cuspids never seem appropriately positioned when close to the centrals or near the mesial line, and the loss of a lateral is really a disfigurement when its place is taken by a cuspid, while the loss of a bicuspid is seldom noticeable, as its place is soon filled.

W. E. Snyder.

In this case I would extract the first bicuspid rather than the laterals. I have a case now, treated as above. Extracted first bicuspid January 3d, 1891, and the space at present is very small, and the cuspids have just made their appearance; the left one is nearly developed, while the right necessitated cutting the gum two weeks ago, and the point just shows. I have been regulating this case since March 15th, 1890. In this case the teeth are very large—good arch. I think this patient is a little older, and the teeth made their appearance late.

Henry S. Abbendschein.

A model should be soaped before putting aside for a time, and then used dry.

The sacred tooth of Buddha preserved in Kandy must have been his sweet tooth.

—Chicago Times.

For Our Patients.

THE TAPESTRY WEAVERS.

Let us take to our hearts a lesson—

No lesson can braver be—

From the ways of the tapestry-weavers,
On the other side of the sea.

Above their heads the pattern hangs,
They study it with care,
The while their fingers deftly work,
Their eyes are fastened there.

They tell this curious thing besides,
Of the patient, plodding weaver;
He works on the wrong side evermore,
But works for the right side ever.

It is only when the weaving stops,
And the web is loosed and turned,
That he sees his real handiwork—
That his marvelous skill is learned.

Ah, the sight of its delicate beauty,
How it pays him for all his cost;
No rarer, daintier work than his
Was ever done by the frost.

Then the master bringeth him golden hire,
And giveth him praise as well;
And how happy the heart of the weaver is,
No tongue but his own can tell.

The years of man are the looms of God,
Let down from the place of the sun,
Wherein we are weaving always,
Till the mystic web is done.

Weaving blindly, but weaving surely,
Each for himself his fate;
We may not see how the right side looks;
We can only weave and wait.

But, looking above for the pattern,
No weaver hath need to fear;
Only let him look clear into Heaven—
The Perfect Pattern is there.

If he keeps the face of the Saviour
Forever and always in sight,
His toil shall be sweeter than honey,
His weaving is sure to be right.

And when his task is ended,
And the web is turned and shown,
He shall hear the voice of the Master—
It shall say to him, "Well done!"

And the white-winged angels of Heaven,
To bear him thence shall come down,
And God shall give him gold for his hire—
Not coin, but a golden crown!

SAVING YOUR TEETH—A PATIENT'S VIEW.

When a dentist says to you that he can "save your teeth," tell him you would rather die toothless than be ground to atoms, stabbed to the nerve centers, prodded with a buzz saw and gagged with large sections of india-rubber sheets, merely to save a few bits of undesirable bone. The first thing the dentist did to me when he undertook to save my teeth was to tip me back in a chair and prop open my mouth with a stick. Then he lined my mouth with rubber, and attached weights to that portion of the lining which hung outside. Then he put a bib under my chin and stood off a little way and gloated over me. I tried to tell him what I thought of him, but was past articulate speech. "Pleasant afternoon," said he, taking up a battle-ax and stepping on a high stool where he could overlook the field of operation. After he had quarried a cavity, and blasted it out, he called an assistant and bade him turn a treadle. A big bumble-bee immediately flew out of the revolving spokes and charged at the newly-made cavity as though it were a flower-cup full of honey. I saw stars, I heard a million slate-pencils squeaking over a gritty surface, I felt cold hands toying with each particular vertebra of my spine, and a Waterbury watch seemed merrily winding in each ear. I tried again to speak, but my efforts were in vain. I would have given gold just to swallow. How little we appreciate our blessings till deprived of them! How unmindful of my opportunities had I been through all those vanished years when I could swallow or not swallow as the mood overtook me. What countless times I had performed that blessed act unwittingly, and now I would have sold my birth-right for the power to repeat that blessed operation. It is generally just at this juncture when, between the pangs of delayed deglutition and the consciousness of feeble-minded drooling the spark of reason bids fair to be extinguished forever, that the dentist begins to joke. What avails the majestic glance of a wrathful eye when the lower features are swathed in a damp sheet?

My attempt at scornful protest was like the attempt of a teething babe to hurl the sevenfold curse of Rome. Alarmed, perhaps, at the pallor which I knew was creeping over my face, my tormentor finally removed the stick from between my teeth and gave me one more chance to swallow and to appreciate to its full what the poet meant when he caroled the glad refrain, "Wipe off your chin."

"You can come again Saturday," said the dentist, as I reeled across the floor and donned my hat. "I shall never come again!" said I, in hollow tones like a voice from the tomb. "You will lose your teeth if you don't," said he. "Yes?" whispered I, leaning my tottering frame against the door-post for support. "And what if I prefer to lose my teeth rather than lose my reason and my life? What I have suffered in your den, old man (he was a gray-headed villian of full sixty summers), has shattered my nerves for years to come. The horror I have endured with your buzz saws and your battle-axes, your patent 7 by 9 drills, and your circular-action battering-rams, has been more of a loss in mental strength and physical aplomb than to have laid down every tooth I have in the dust. When you have patented a process by which dentistry is made not any more painful than guillotining, I shall call again; till then, old man, adieu!" (N. B.—Pride will make any woman tell the worst sort of fibs. Notwithstanding my vow, I shall be on hand on Saturday, and that dentist knows it.)

LUCY JANE HOPPER'S TEETH.

She was tall and slim; her cheek bones were high and projecting. She wore spectacles that looked venerable by age, and there was a delightful harmony between the large, round glasses in them and her wearing apparel.

"I just tho't I'd step in," she said, to a New York dentist, who had left hurried work in his laboratory, to answer her ring of the door bell. "I just tho't I'd step in, mister, to see if you mended Lucy Jane Hopper's teeth, wot lives in Hardscrabble. If you only know'd the stuck up airs that ere gal' puts on, you'd be sick 'nough to vomick—and her old dad ain't any great shakes, atter all. Why, bless your heart, mister, she tells everybody 'round our way that she paid out, in one lick, goi'n on to five dollars to have her teeth cobbled up; and atter that, she sed she had uther costly fix'ns dun to 'em.

"Don't know her, eh? Well, mebbly she went to some uther shop—but, la me, sur, tain't no matter to bother my branzas 'bout.

"My old man, he was kummin' to York to sell a lot o' hickory nuts wot me an' him pick'd, an' nuthin' would do but I must kum along, too. Sez, he, 'Sophia'—that's my name—'Jim and Zeke'—them's our lit'lest boys—'wants new trousers, an' you kin git 'em at the same time.' But mercy sakes alive, I'm so kompletely upso't here, as it wuz, with the holler'n an' screem'n of people, an' the noise of keerts an' keers an' steam injins, that acter'ly I ain't fit ter buy ennythin'. I 'spose you folk'ses wot lives here all the time, gits kinder used to it. Howsumebber, the tho't kum to me as I sot on this cheer, that mebbly Zeke would like to to'larn how to cobble up people's teeth, too; but, goodness sakes alive, a body couldn't expect it, fur he ain't six years old 'till—lemme see! Well! what a dunce I am! I acter'ly don't remember the day Zeke wuz born on! I 'sposo you take 'prentices to larn the trade, onc't in a while, altho' I'd rather Zeke would go to skool one or two winters, so as to git his eddicashun, as they kall it nowerdays—he's pizen smart to larn when he sets out to do it, but—"

"Madam," interrupted the dentist, "it's my duty to tell you that there is a skeleton, dead, in the back room, and that it died of malignant small-pox. I would be ex-cruciatingly delighted to listen longer to your very entertaining talk, but I fear poor little Zeke would soon be a motherless child if I allowed myself this pleasure."

"Great Scott, you good fur nothin' sneakin' fool!" she exclaimed, while springing like a deer from her seat. "Why didn't you tell a critter that afore I kum in! I tho't I smelt sum horrid stuff," she said, while bounding down stairs six steps at a leap.

After reaching the sidewalk, the doctor, whose curiosity took him to the front window, says, "That with her bonnet hanging at the back of her head like a tattered flag, fluttering in a stiff breeze, it did him good to see her making a 2.40 headway up the avenue. For two blocks," the doctor says, "her running would equal any performance in that line on record."

"My charge for taking a tooth out, madam, is one dollar."

"But, doctor, isn't that rather dear? Your neighbors charge but twenty-five cents."

"Ah! but you must remember, madam, that they hurry over their work, while sometimes I spend an hour or so drawing a tooth."

ATTENTION, says Lowell, is the stuff that memory is made of, and memory is accumulated genius.

Current Notes.

Oxyphosphate is one of the best things to cement broken plaster.

Sulphate or chloride of zinc dissolved in water is a good disinfectant.

Dr. Jones uses a mandrel with corundum flour and water for making cavities in porcelain teeth.

Dr. J. W. Simpson, of Virginia, was recently fined one hundred dollars for practicing dentistry contrary to law.

Oil of wintergreen is said to be good for rheumatism. Take a few drops on loaf-sugar several times during the day.

There will be a meeting of the Eastern Iowa Dental Society at Iowa City, Ia., January 12th and 13th, 1892. All are invited.

Dr. Keeley is said to be getting very wealthy from his inebriate-cure establishments—struck a bichloride of gold mine, so to speak.

If the mercury in a vulcanizer becomes divided, heat the vulcanizer top till the mercury tube becomes filled, and let it cool slowly.

A smooth glazed bowl is best for mixing plaster. If some of the plaster dries in the bowl, it will come off easily when water is poured in.

The difference between a rich man and a poor man is, the first lays up a little of his income, however small it may be, the other spends all.

Before cutting an old plaster model, drop it in water, and it will soon cut easily. It should also be soaked a little if plaster is to be added to it.

To separate a model from an impression, when they have been left together for some time, first drop them in hot water. The steam generated will make separation easy.

Dr. Ottoby says our experience so far with implanted teeth is that they last from three to five years. No instance is yet known of disease being transmitted by the operation.

A telegram from Houston, Texas, reports that Mrs. Kate Williams has there given birth to "a boy baby which has a full set of teeth," and adds that "medical men are puzzled."

Dr. Andrews seldom uses sections; uses one thickness of wax and does not use the blow-pipe or spatula after waxing. This gives evenness and strength to the plate.

EDITOR ITEMS:—At the annual meeting of the Odontological Society, of Chicago, held in November, the following-named officers were elected: President, Dr. G. Newkirk; Vice-President, Dr. W. B. Ames; Secretary and Treasurer, Dr. E. Noyes; Curator, Dr. Thos. L. Gilmer; member of Board of Census, Dr. E. D. Swain.

DR. STEELE'S BOOK.—I am receiving letters of inquiry from dentists in all parts of the country asking about my book, mention of which was made in November ITEMS. It is impossible for me to answer all letters personally. The manuscript is in the hands of one of the best publishing houses, and the work will be out as soon as they can get to it. Mention will be made in ITEMS in due time.

Wm. H. Steele.

A New York judge thus recently charged a jury in New York, in reference to the administration of anesthetics: As an anesthetic deprives a patient of the control of his faculties and renders him unable to take any precautions or make any effort for his own safety, the physician or surgeon administering it must exercise the highest professional skill and diligence to avoid every possible danger. The professional man, however skilful, who leaves an essential link wanting or danger unguarded in such treatment, is chargeable with negligence and answerable for any resulting ill consequences.

DOUBLE BACKING FOR RICHMOND CROWNS.—I use pure gold about No. 38 to 40, standard gauge. After grinding the tooth to fit the ferrule cut out of a piece of gold, leaving it long enough to cover the tip of the tooth at an angle of 45 degrees; cut the second piece a little longer so the solder will not join the two; do not rivet the pins, but use sticky wax to hold the backings in place till the crown is in the investment and then solder in the usual way.

I have found this rule, when followed out, to give good satisfaction after using it over a year, having had no trouble with checked teeth.

In giving gas, the foot-stool of the chair should be removed.

It is computed that 75,000 persons take nitrous-oxide gas yearly in the United States alone.

The dessicated fruits which we get from California have been deprived of their moisture by a blast of cold air, it having been found that hot air, which was at first used, shriveled up the outside rapidly and, closing the pores of the fruit, prevented the moisture on the inside from getting out.

In extracting under gas, as few forceps should be used as practicable. And it is astonishing to see how few will be sufficient when they are selected intelligently. We have seen a dentist take out twenty-four teeth with three pairs; and if some had not been quite frail and broken down, only two pairs would have been used, and there seemed to be no call for more.

In filling a cavity with amalgam or alloy, dry, or almost dry, flakes should be added, before the cavity is fully filled and pressed, into that already packed. This will not only take up the surplus mercury that almost always appears on the surface, but it will prevent shrinkage, make a harder surface, and take a better polish. Of course, so much should not be added to cause the body to crumble, or to disintegrate, but to take a solid, smooth, quick-setting surface.

A gentleman asks how best to clean old, dirty pieces of wax. My way is to boil them in water. After the water is cold, cut off the dirt, which will be found on the under side. Then boil again in clean water, putting a teaspoonful of sulphuric acid in as soon as it comes to a boil. After a few minutes' boiling, cool. This time your cake will be as clean and bright as new wax. If you want it specially tough, add a little Venice turpentine.

In giving gas, every dentist will have some belligerent patients. The first essential is not to allow them to get away from you, or to attack you. The next is to hold them in such a position that they can do no damage to the chair or surrounding furniture or themselves. If the foot-stool has been removed, then, if a struggle occurs, quickly place yourself behind the patient, and, throwing your arms around his neck, hold his head fast in the head-piece. These belligerent demonstrations never last more than a few seconds, when you can in safety release the head from your grip.

"Practical Dental Metallurgy," by Thomas Fletcher, F.C.S., Warrington, England. There are few books of condensed instruction more valuable on this subject than Fletcher's Metallurgy. It is not a mere collection from various sources, but the result of practical labor and long experience. There is probably no one connected with our profession that has had a longer, better, or more successful experience in dental metallurgy.

Some oxyphosphate is poor; there is no doubt about that. There are also some poor manipulators; there is no doubt of this. A gentleman called my attention to some cement he had been using from. It was still soft, though it had been mixed fifteen minutes. "Mix another batch," said I. He mixed it, and that was all right; it became very hard in a few minutes. "Now, what can be the difference?" said he. Then I mixed some that hardened so quickly it crumbled before it could be used. I mixed some more that would not harden at all, or, at least, in time to be of use. The difference in all these was only in the mixing. His first and my last were mixed too thin. His second was mixed in the right proportion, and my first was mixed too stiff, with all the powder brought on to the fluid immediately, instead of gradually.

No physician or surgeon in Georgia, if once convicted of drunkenness, can ever again practice his profession in that State. This is the substance of a law recently passed. It seems the Georgia solons do not propose to have Georgia inhabitants made victims of prescriptions written by men when they see double. The subject is worthy of the attention of the Ohio legislators. It is but a few days since a Cincinnati physician was taken off the streets suffering from delirium tremens, while still another is locked up in the workhouse, convicted of habitual drunkenness. It is not many years since one of the most prominent men in the Cincinnati medical society, conscious of his consuming appetite for rum, invariably wrote his prescriptions twice, each time keeping a copy, thinking thus to escape any mistake which he was fearful his dipsomania might lead him into. This consciousness of the danger of mistakes manifested by the physician himself, ought to convince the most charitable of the necessity for some such law as Georgia has recently enacted. Why should not this wholesome standard apply to dentists?

It is our duty to look well to our ideal. While we cannot hope for perfection we should cherish the truth tersely expressed in the old couplet, "Who aims the sky shoots higher far than he who means a tree."

Being not discouraged by failure, still a knowledge of the vast number of operations badly done, should, for the present, prevent our having any feeling of vanity.

The truest success does not always mean mechanical perfection.

A successful dentist must have a thorough knowledge of human nature, which can only be acquired by the most of us, by the closest observation and study.

—Dr. M. L. Hanaford, in *Review*.

SMALL SIZE OF GREAT MEN.—It is a remarkable fact, though rather paradoxical, that many of the world's greatest men have been small of stature. Sheridan was known as "Little Phil," the world over. George B. McClellan was of but little larger build. Napoleon's nickname, "The Little Corporal," is a household word in every civilized country. "The Iron Duke" (the Duke of Wellington) was often twitted on account of his small stature and big nose. Gen. (Lord) Wolseley is said to be ridiculously small, and to be compelled to shorten his stirrups till they would hardly serve a ten-year old boy when he rides horseback. One's mind's eye is likely to picture Gladstone as a giant, both physically and intellectually, but it remains a fact that the "Grand Old Man" is but five feet eight inches high.

Dr. E. Parmly Brown, of New York, has a new method in making a band, using platinum gauge 30 to 36; the band is made wider than necessary after it has been fitted and soldered with pure gold, the portion projecting beyond the end of the root is clipped and bent over so as to cover the end, being neatly malleted with a plugger, to properly fit the root. It can then be soldered to any pin-tooth, by simply pressing the pin through the platina, or it can also be used without soldering it to the tooth, as the cement will hold it in place.

TO KEEP DENTAL CAVITIES DRY while filling, it is necessary to resort to a great many expedients, according to the situation and other circumstances. With many small cavities, a piece of spunk or string, or a roll of paper, crowded under the free margin of the gums, will serve the purpose admirably; cut the gums loose a little way, if necessary.

The dental department of the Cincinnati College starts out well in this winter's course. It has matriculated three lady students and twenty-eight gentlemen.

"Dental Questions and Answers," by Dr. Gustavus North, is an improvement on some quizzes, as it gives rational, concise answers to questions covering a large field. \$1.00.

"Self-Examinations for Medical Students" is a neat pocket quiz that is unique. It not only gives questions for self-examination, but refers to authorities for the answers, and embraces nearly the whole scope of medical and collateral subjects. P. Blakiston, Son & Co., Philadelphia. Price not given.

"Dental Medicine," by Dr. F. J. S. Gorgas, P. Blakiston, Son & Co., Philadelphia, is a well written book of five hundred pages. This is a regular systematic treatise on dental materia medica, similar in style and plan to the text-books of physicians. It is intended to be a standard work, and should be in the library of every dentist.

At St. Paul, Minn., on the 4th day of November, a few of the enthusiastic dentists met and organized what is to be known as "The St. Paul Dental Society."

The spirit manifested points to a successful and harmonious consummation of the wishes of those who have the interests of the project at heart.

The officers elected are: President, Dr. C. H. Goodrich; Vice-President, Dr. B. C. Cornwell; Secretary, Dr. Chas. A. Van Duzee; Treasurer, Dr. T. H. Jacobs.

Dr. H. E. Van Horne,
444 Sixth avenue, New York.

DEAR SIR:—I have your letter of November 3d, making inquiries regarding Mr. R. Van Ingen. The inquiry is one of many on the same import, concerning the same man. The police department of Rotterdam report to me that Van Ingen is a dishonest, irresponsible, propertyless man. Money spent to recover aught from him would be money thrown away.

Walter E. Gardner.

Editorial.

DENTISTS' RESPONSIBILITY FOR CLEAN COLLEGES AND A CLEAN PROFESSION.

Dentists are largely to blame for the many ungentlemanly students at our colleges. Few are there without the encouragement and indorsement of a dentist. Here is where a large number should be turned back. I have been applied to by more than a hundred young men for advice and instruction in this direction, but have not sent more than a dozen to college. My first thought is of their education, appearance, manners and habits. An ignorant, rough, ill-mannered, tobacco-chewing or smoking young man is totally discouraged, whatever be his aptness or other qualifications. If he is ignorant in the primal branches of an education, let him first go to school, and to a school that will teach him manners, too, and clean him up. Then let him come again. Even if he is a gentleman in appearance and manners, if he uses tobacco I have no use for him in the dental profession. We have enough of this class already; and though the best of these keep tobacco out of their office, and as far as they can, from the scent of their breath and clothes, they still offend some of their best patients. It is perfectly disgusting to see the filth of this nasty weed at our dental colleges. I would like to hear of one free from it. That college would certainly have my patronage and influence. Of course, the young man who will defile his college by this obnoxious habit will carry the same evil to his office, when he has one; and bad habits always grow stronger, specially the strength of tobacco.

Some years ago the Methodist Episcopal Church passed a rule that no young man should be admitted to the ministry who used tobacco; but they passed no rule excommunicating those of their own number who continued its use; in fact, many tobacco-chewers and smokers voted the rule against young men. This was thought by some to be unjust, because discriminating. But the church did not deal with the use of tobacco as a crime, but as against propriety and good example; therefore, though it could tolerate it in

the old ministers who were passing away, it determined to have the young generation of ministers free from it.

So I would have it in the dental profession, and there are few tobacco users who would advise young men or women to use it. Its use should debar the young man from his first step, as he applies to the dentist; it should debar him from his second step, as he applies for admission at the dental college; it should debar him from the third step, as he asks for his diploma; it should debar him from his final step, as he asks for patronage, unless he is willing to confine himself to those of like habit.

HOW TO AVOID FAILURE AND BE SUCCESSFUL.

How many things we leave half done; how few we complete. Half of life is spent on failures, while our successes can be counted on our fingers. Oh, the rubbish that we have thrown away all along in our path! To-day they are our pride; to-morrow our disgust.

Is not this much our own fault? Is it not occasioned largely by zeal without knowledge, action without reflection, work without plan? Would we not do better to read less and digest more; to do less and do better; to begin less and perfect more? Verily we run at random, when we ought to walk with carefulness; we strike right and left at phantoms, instead of struggling with realities; we bungle with many things, instead of being an expert at something.

Is it any wonder we fail?—that we are continually at loggerheads with the world and the world with us?—that we are forever learning and never able to come to a knowledge of the truth?—that we are children, tossed to and fro by every wind that blows, instead of being stable, stalwart, successful men? Oh, how busy we are about nothings, never settling down to solid thinking, sober acting and skilful working. Even if we acquire, we squander; if we learn, we forget; if we have advantages, we lose them; so that many of our best thoughts become dissipated, many of our most cherished plans become frustrated, and many of our brightest successes become failures.

Why not simplify our life by seeking less, and doing better with what is within our reach? This forever neglecting what we have to grasp what is beyond us, is the bane of our life. With a garden spot well tilled, with a mind well filled and a heart well willed, life may be a Paradise.

The dentist has peculiar facilities for self-improvement, and for the pursuit of pleasurable or of profitable avocations. While he is at his professional work he is so well paid—so very well paid, if he is skilful, popular and wise—he should have no regrets that he has also leisure; and if he wisely employs it, it may be as useful to him as the time in which he is making money. While I was in the practice of medicine, one of my regrets was that I had no regular hours of business, and that when I had leisure, it was so precarious and often so untimely, and I so generally unprepared to take advantage of it, that it was discouraging to try to turn it to any settled pursuit. But the dentist's hours of work are definite, few and pleasantly intermittent, while the time on his hands outside of these is also considerable.

The relation of dentist to patient is peculiar, sometimes complex, occasionally embarrassing. Its tendency to the social, the sympathetic, and even to the pitiful, increases its delicacy, and whispers caution. Yet it is not difficult to an operator of sound mind and heart, and good common sense. If he is a true man, awkwardness will soon graduate to refinement, blunders to correct deportment, and embarrassment to ease. Experience and a delicate discernment will tell him where to walk softly, when to use diplomacy, and how to produce trustfulness. But it is well for us all to keep in mind the difference between dignified familiarity and undignified intimacy. We must have an intuitive perception and an insinuating delicacy not developed in a coarse, vulgar nature. But where there is refinement there will be discretion that is pleasing, a delicacy of language and deportment that is winning, and a flow of wit, or of intelligence, or of society, that brings friendship, begets confidence and mitigates suffering.

WE ALL WEAR CLOAKS.

We all have cloaks. And it is well, perhaps, we have. It is better for some things to be covered than exposed to view. Many of us would not look half as well with our cloaks off. Then again, we have ills and troubles, griefs and disappointments, losses and crosses, the public don't want to know anything about. Hide them. It is better that each heart shall best know its own bitterness, and that no neighbor shall interfere therewith. We are poor, weak mortals at best, and need to dress pretty well to appear at all respectable.

But there is a use for cloaks not so commendable. We cover what should not exist, or, at least, what is filthy and should be cleaned. Because we can keep a disgrace from the public sight is not a good reason for its tolerance. Some people never clean their body, mind or spirit; though they have cloaks on, there is an odor that betrays corruption; and there are sure to be rents in the cloak that expose their hypocrisy.

Don't be in a hurry to write for the magazines. Wait till you get an idea—an important, burning, irrepressible idea—then get right at it, and tell it in as few words as possible. Too many, we fear, think more of being seen in print, than of having a live thought to communicate. And so we have, specially in some of our long essays, words, words, nothing but words. Do you know powder rammed down the cannon's mouth with nothing but weeds will make more noise than when sent home with the forcing in of a cannon ball?

I heard a minister talk to an audience for fifteen minutes without saying anything; then he got hold of an idea, and rushed on to good purpose. I asked him afterward what the matter was. "O," said he, "for the first fifteen minutes I was looking for an idea." He had not prepared himself for the occasion, and, therefore, commenced speaking without a well-digested thought.

Judging many essays and speeches at our yearly gatherings

by this standard, we have many of this type. And yet these wordy, weedy men are often first to be heard and last to subside. Let us not discourage beginners, nor expect perfection from them. But it is a wise thing to know when to speak and when to keep silence, and, specially, when we speak to know when to stop.

If writers to magazines took half, or a quarter, as much pains to condense and perfect what they write, as editors do with their own articles, our journals would be richer for the pains.

Many dentists work to disadvantage, and are often embarrassed, and sometimes put to confusion by continually trying new instruments, new remedies and new processes without becoming thoroughly familiar with those they have, or making a sufficient test of the new. They are experimenting too much, and too much at random. To be the master of a few things is better than to be a novice in many. Some think it is necessary to have a large variety of instruments for excavating, filling and extracting teeth. If they would become familiar with what they could do with a few of the best they would be surprised at the advantage. Their shelves are loaded with remedies, but in using so many they are not aware of how much they could do with some of the best. It is quite right to try new things, but it should be done with much thoughtfulness and good judgment.

THE NEW YEAR.

Happy New Year to you, dear readers. May its blessings be bright, substantial and enduring.

But, for all this to be yours, must not the new year be to you a new life? Those who have no special improvements to make, or are not willing to pay their price, will please pass by the following. Yet we fear those who can see no need of such occasion for self-examination, allow to slip by a golden opportunity.

We all get somewhat into ruts, where the road and the load grow heavy, and we gradually go slowly and joylessly. We thus

travel to a disadvantage. We ought to be thankful to be shown a better way. To shake ourselves from hindering circumstances, and get into a better and brighter path, to look back and see our follies, to take a calm estimate of the present and look into the possibilities of the future, is helpful. If we clean our eyeglasses we may see a new ray of light, a new beam of hope and joy and love, and find a key to the treasury we could not otherwise have discovered.

In this way many a man, weighted by what he thinks inevitable, or what he had thoughtlessly and foolishly borne, has made the new year, indeed, a golden opportunity, and new life of satisfaction and prosperity, a bursting into view of a new world, as well as a new year.

The world is largely what we make it. What we are, the world is. Yes, more, if possible. That we carry about with us, is our world; for what we will, it is—gloomy or bright, a wilderness of tears, or a home of delight, failure or success.

Oh, yes, some troubles reach us from without, some untoward circumstances we could wish differently. But most that makes up our weal or our woe—that makes up our world of happiness or misery, is within us, and under our control.

But as we make our precious metals bright by much scouring and polishing, so to see what we are and what we may become, we need much severe preparation, sometimes even actual melting in the crucible.

At first, as we look into our condition for the new year, we may not discover much to do; but as we are willing to submit ourselves to a thorough renovation, we find quite enough to show cause for the comparative failure of the past and what may now become the brilliant success of the future.

My gas furnace, in which I melt silver and gold, gradually gave less heat, till I was obliged to take it all apart and clean every piece. It did not seem very dirty. There was a little dust here and there, and little rustiness in the valves, and a few specks of gold and silver and sand, where they ought not to be; yet it was astonishing to see the beautiful blue and intensely hot flame it gave when it was again put together. It was then just a pleasure to do my work.